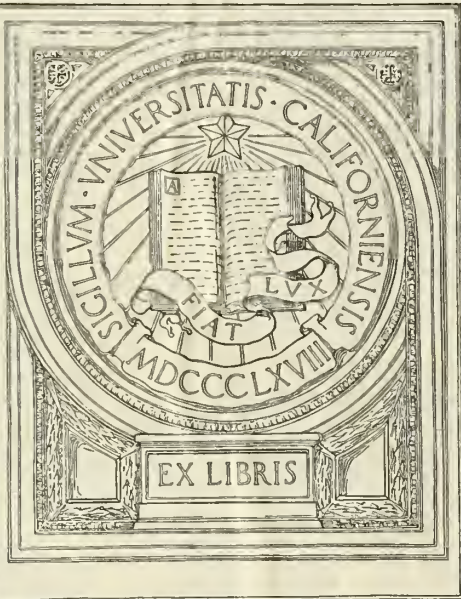



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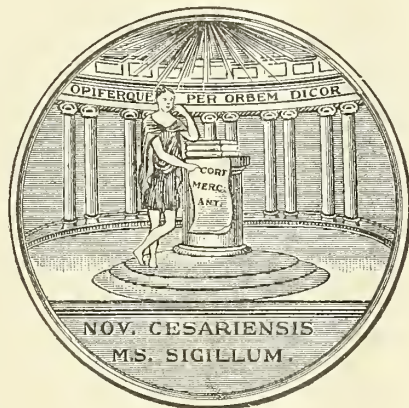
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INDEX

Address, President's Annual	533
ADVERTISING—	
Advertising John Hammond Bradshaw	967
Bar Group Advertising	429
Challenging Misleading Advertisements	344
County Society Publicity	410
Creating An Attitude	661
Dental Advertising	429
False and Misleading Advertisements; T. Swann Harding	808
False Or Misleading Medical Advertising	500
Group Advertising	502
Paying Extravagantly For a Name	246
Amendments to Constitution and By-Laws...Sept. Sup. 2	
American Academy of Pediatrics; An Explanation	271
American Board for Ophthalmic Examinations	270
American Board of Obstetrics and Gynecology	271
American College of Physicians, Prize Award	268
American Medical Association House of Delegates Report	714
American Public Health Association Meeting	678
ANNUAL MEETING—	
Preliminary Program of	417
Transactions of	Sept. Sup. 1-76
AUTHORS OF ORIGINAL ARTICLES—	
Abel, Henri Ernest: Relation of Anaphylaxis to Acute and Chronic Disease	474
Adams, Charles Franklin: Hemorrhages in the Vitreous of Young People	323
Adelman, Benjamin B.: Detachment of the Retina	445
Allen, Frederick M.: Insulin In Tuberculosis	335
Allman, David B.: Gas Bacillus Bacteremia Following Abortion	742
Carcinoma of the Breast	701
Antonius, N. A.: Discussion of Thymus Gland Conditions In Children	302
Avidan, M. S.: Medical Aspects of the Workmen's Compensation Act	143
The Physician and the Workmen's Compensation Act	458
Baeseman, R. Winfield: Neuritis, Retrobulbar	861
Baker, Charles F.: Discussion of Thymus Gland Conditions in Children	302
Baker, Maelyn: Liver Function Tests	648
Bakel, H. Sheridan: Personal Element in Medical Economics	5
Some Factors in State Medicine	538
Barkhorn, Henry C.: Discussion of Acquired and Congenital Facial Deformities	323
Discussion of Facial Paralysis	225
Discussion of Sinus Disease In Children	108
Discussion of the Tonsil Problem	294
Barrett, Wesley J.: Building Together	235
Barringer, B. S.: Bladder and Prostatic Carcinoma	115
Discussion of Bladder and Prostatic Carcinoma	122
Bashinski, Benjamin: Attention to the Pre-School Child	80
Baum, Felix: In Memoriam Robert Koch	238
Beling, C. C.: Committee Report on Defense and Indemnity Insurance	Sept. Sup. 37
Bell, Horace O.: Granulocytopenia	231
Bingham, Arthur W.: Discussion of Cane Sugar in Infant Feeding	858
Letter Regarding Maternal Welfare Committee	270
Preseasonal Report of the Maternal Welfare Committee	415
Prevention of Obstetric Complications by Diet and Exercise	346
Report of Committee on Maternal Welfare	Sept. Sup. 41
Blackburne, G.: Discussion of Surgery	761
Recent Advances In Surgery	751
Blanchard, Kenneth: Discussion of Poisoning by Wintergreen	305
Blanchard, O. R.: Relation of Doctors to Fellow Practitioners	673
Bradshaw, John Hammond: A Contribution from the Press	68
Adversity	155
Advertising	967
Being Alive Is An Experience Not To Be Missed	710
Mental Metabolism	870
Morality Is a Private and Expensive Luxury	704
Our Ethical Complex	504
Regrets	342
Professional Building	248
Toronto General Hospital	664
What Is Greed?	424
Brown, Chester R.: Discussion of Sinus Disease in Children	108
Discussion of the Tonsil Problem	295
The Tonsil Problem	291
Brown, Grafton Tyler: Seasonal Hay-Fever	483
Brown, Lewis W.: Blood Transfusion in Septic Diseases of Children	41
Burritt, N. W.: Discussion of Symposium on Sinus Diseases	114
Buyinger, Charles W.: Discussion of Symposium on Sinus Diseases	114
Campbell, W. K.: Discussion of Cataract Extraction	854
Discussion of Industrial Eye Injuries	763
Cardwell, Edgar P.: Facial Paralysis	220
Carpenter, Cedric C.: Ringworm of Feet and Groin	683
Carris, Lewis H.: Discussion of Conservation of Vision	140
Cassidy, John M.: Relation of Doctor to Individual	672
Christian, Thomas B.: Discussion of Functional Indigestion	746
Clarke, Joseph A.: Discussion of Sinus Disease in Children	108
Clerf, Louis H.: Discussion of Larynx and Hypopharynx	897
Discussion of Upper Respiratory Tract Complications	912
Cleveland, Mather: Poliomyelitis	643
Conaway, Walt P.: Report of Delegates to the American Medical Association	Sept. Sup. 44
Cosgrove, Samuel A.: Report of Committee on Post-Graduate Education	Sept. Sup. 33
Craster, C. V.: Value of Antitoxin Serum Treatment in Pneumonia	849
D'Acerno, P.: Ovarian and Anterior Pituitary Hormones in Sexual and Reproductive Cycles	394
Davidson, Harold S.: Carcinoma of the Breast	701
Discussion of Functional Indigestion	745
Davies, William Rowland: Looking at Both Sides of Our Public Relations	157
Deibert, Irvin E.: Treatment of Compound Fractures	836
Dieffenbach, Richard H.: Discussion of Upper Respiratory Tract Complications	913
Upper Respiratory Tract, Complications Following Operation	908
Dinge, Ferdinand C.: Food Poisoning	333
Doran, William G.: Congenital Dislocation of the Hip Joint	564
Downs, Elwood E.: Bone Metastasis in Breast Cancer	957
Cancer of the Skin	619
Eagleton, Wells P.: Discussion of Tumors Involving the Optic Chiasm	206
Meningitis From Ear or Nose	924
Eigen, L. A.: Vaginal Diptheria	778
Emerson, Linn: Random Thoughts on Medical Economics	733
The Problem of Medical Charity	342
English, Samuel B.: Discussion of Pulmonary Tuberculosis	954-957
Discussion of Upper Respiratory Tract Complications	911
Pulmonary Collapse Therapy in Tuberculosis	938
Evans, David P.: Cane Sugar in Infant Feeding	856
Discussion of Cane Sugar in Infant Feeding	859
Fahrenbruch, Frederick D.: Maternity Care	573
Failing, B. E.: Diathermy in Eye, Ear, Nose and Throat Affections	470
Discussion of Cataract Extraction	855
Farmer, Thomas P.: Governor's Special Health Commission Report	594
Farmer, Vincent: Polyposis of Small and Large Bowel	463
Fine, M. James: Discussion of Upper Respiratory Tract Complications	913
Finkelstein, A. S.: Discussion of Influenzal Meningitis	313
Discussion of Treatment of Eczema in Infants	200
Treatment of Eczema in Infants By a Milk-Free Diet	189
Fisher, James A.: Neuritis, Retrobulbar	861
Fitch, Thomas: Discussion of Acquired and Congenital Facial Deformities	323
Fort, J. Irving: Discussion of Simple Fractures	835
Fort, Paul: Discussion of Upper Respiratory Tract Complications	913
Tuberculosis, Pulmonary, Collapse Therapy in	938
Gelber, Louis L.: Reutgen Ray Consideration of Colon	551
Goldstein, Hyman I.: Discussion of Hemorrhages in the Vitreous of Young People	324
Maggots and Other Insects in Medicine	145
Goldstein, Henry Z.: Optic Nerve Pathology and Sinus Disease: Case of Neuroretinitis	704
Gordon, Alfred: Psychoneuroses In Relation to General Medicine	697
Gray, John W.: Discussion of Peptic Ulcer	751
Greenberg, Lewis: Spontaneous Dislocation	327
Griesmier, Zadore L.: Discussion of Ocular Manifestations of Focal Infection	212
Hagerty, John F.: Discovery of the Tubercle Bacillus	337
New Year's Greeting From The President	65
Presidential Address	533
Halprin, Harry: Trichinosis	217
Harding, T. Swann: Fads, Frauds and Physicians	71

Hardisty, Esther B.: Irradiated Milk in Prevention and Treatment of Rickets	505	Heart in Relation to Physical Education	913
Harley, H. L.: Discussion of Industrial Eye Injuries..	768	Levin, Louis: Electrocardiograms of Mental Patients.	140
Harris, Thomas J.: Can Qualifying and Certifying of Specialists Be Conducted by National Examining Boards and Colleges of Surgery and Medicine...	254	Levy, Julius: Child Hygiene Nurse	359
Hastings, Willard S.: Cancer Malignancy, General Effect of	617	Deaths in First Month of Life	935
Heller, N. B.: Discussion of Cutaneous Epttheloma...	40	Discussion of Influenzal Meningitis	313
Discussion of Heredosophilis	310	Discussion of Private Physician in Community Health Program	845
Treatment of Early Syphilis	468	Discussion of Treatment of Eczema in Infants	200
Herrman, William G.: Discussion of Atresia of the Esophagus	860	Treatment of Eczema in Infants by a Milk-Free Diet	189
Hicks, William H.: Conditioned Reflex of the Cerebral Cortex	21	Lewis, Thomas K.: Discussion of Peptic Ulcer	751
Hirst, John Cooke: Female Sex Hormone Therapy..	5/4	Management of Peptic Ulcer	747
Hollinshead, Ralph K.: Preliminary Report of Committee on Scientific Program	411	Lincoln, Jennings S.: Granulocytopenia	231
Hosp, Paul: Symptomatology and Treatment of Thymus Gland Conditions in Children	295	Lippincott, A. Haines: Pressional Report of the Welfare Committee	413
Hubbard, H. H. V.: Discussion of Acquired and Congenital Facial Deformities	323	Littwin, Charles H.: Discussion of Ocular Manifestations of Focal Infection	212
Discussion of Symposium on Sinus Disease	113	Liva, Arcangelo: Discussion of Ocular Manifestations of Focal Infection	212
Hubbard, Samuel T.: Discussion of Neuritis	863	Livengood, H. R.: Functional Disturbances of the Heart	325
Discussion of Ocular Manifestations of Focal Infection	213	Logie, H. B.: Etiologic Conception of the Disease-Entity	225
Ocular Manifestations of Focal Infection	20/	London, William: Discussion of Cane Sugar in Infant Feeding	858
Huil, Donald B.: Discussion of Common Cold.....	828	Mackenzie, Robert W.: Pelvic Inflammatory Disease..	569
Discussion of School Health Program	819	Maliniak, Jacques W.: Important Factors in Surgery of Acquired and Congenital Facial Deformities...	314
Hummel, E. G.: Discussion of Treatment of Eczema in Infants	200	Marcus, Joseph H.: Discussion of Private Physician in Community Health Program	843
Ireland, Allen G.: Discussion of Common Cold	826-29	Letter Explaining American Academy of Pediatrics.	271
Discussion of Poliomyelitis	924	Marsh, Elias J.: Annual Report of the Treasurer	502,
Discussion of Private Physician in Community Health Program	845	Sept. Sup. 27	
Discussion of Responsibility of County Society to School and School Physician	824	Discussion of Conservation of Vision	139
Discussion of School Health Program	819-22	Discussion of Industrial Eye Injuries	769
School Health Program For Physician	811	Fees, Specialists and Kindred Annoyances	1
Ireland, Milton S.: Testimonial Dinner To	178	Lenticonus Posterior	769
Irvin, John S.: Treatment of Simple Fractures	831	Special Report of Treasurer	152
Jaffin, A. E.: Discussion of Functional Indigestion..	746	Martland, Harrison S.: Director of Scientific Exhibit	Sept. Sup. 57
James, Bart M.: Cutaneous Epithelioma	32	May, Ernst A.: Discussion of Cancer of Breast	958
Etiology and Treatment of Essential Pruritus	454	Roentgen Ray Diagnosis	631
Janifer, Clarence S.: Negro Infant Mortality	932	McAndrews: Discussion of Cataract Extraction	855
Johnson, Frank C.: Discussion of Influenzal Meningitis	313	McCauley, F. J.: Discussion of Blood Transfusion ..	48
Discussion of Poisoning by Oil of Wintergreen	306	Treatment of Heredosophilis	306
Discussion of Private Physician in Community Health Program	844	McGivern, Charles S.: Credulity of Rhinologists Anent the Sinuses	111
Discussion Tonsil Problem	295	Discussion of Symposium on Sinus Diseases	113
Findings of the Governor's Conference on Child Health and Protection	101	McGuire, Jas. J.: Report of State Board Medical Examiners	Sept. Sup. 45
Influenzal Meningitis	311	Mengel, Willard G.: Discussion of Cataract Extraction	855
Johnson, Thomas H.: Discussion of Hemorrhages in the Vitreous of Young People	325	Miller, D. J. M.: Discussion of Cane Sugar in Infant Feeding	858
Discussion of Ocular Manifestations of Focal Infection	212	Morgan, Browne: Discussion of Industrial Eye Injuries	768
Discussion of Tumors Involving the Optic Chiasm...	207	Morrison, J. Bennett: Annual Report of Secretary	Sept. Sup. 16
Tumors Involving the Optic Chiasm	200	Discussion of Upper Respiratory Tract Complications	913
Johnson, V. E.: Acute Empyema Thoracis	382	Message from the Secretary of the State Society...	709
Kahrs, Grace M.: Discussion of Common Cold	826	Mountin, Joseph W.: The County as a Unit for Public Health Service	560
Keim, William F.: Discussion of the Tonsil Problem..	294	Mutchler, Julia C.: Common Cold in the School	824
Kelley, C. B.: Relation of Doctor to Medical Society..	675	Discussion of School Health Program	819-20
Kilduffe, Robert A.: Carcinoma of the Breast With Unusual Metastasis	701	Myatt, Leslie E.: Modern Thyroid Considerations...	829
Gas Bacillus Bacteremia Following Abortion	742	Newcomb, M. W.: Discussion of Common Cold	828
Practical Phases in Utilization of the Clinical Laboratory	490	Nichols, Stanley: Discussion of Child Health and Protection	103
Sustained Hypercreatinemia	42	Discussion of Private Physician in Community Health Program	843-847
Concerning the Serologic Study of Syphilis	398	Statement from Chairman of the Pediatric Section..	269
Kiley, J. E.: Discussion of Heredosophilis	311	Xeroderma Pigmentosum	41
Klein, W.: Discussion of Cancer of the Breast	958	Ochsner, Edward H.: Genesis of Social Insurance ..	78
Discussion of Mesenchymoma	277-8	Social Insurance	171,
Mesenchymoma	274	269, 358, 431, 510, 603, 677, 708, 806, 874, 974	
Knight, I. W.: Discussion of Common Cold	829	Orton, Henry Boylan: Larynx and Hypopharynx	893
Discussion of Poliomyelitis	924	Paddock, Royce: Discussion of Influenzal Meningitis..	313
Discussion of School Health Program	822	Discussion of Treatment of Eczema in Infants	200
Facts in a Child Health Program of Interest to Health Officials	9	Paglinghi, John J.: Discussion of Poliomyelitis	923
Krauss, F. I.: Discussion of Cane Sugar in Infant Feeding	858	Parry, Oliver K.: Congenital Cysts of the Liver	560
Kuder, Joseph M.: The Other Fellow	59	Perry, Mathew White: Colitis	635
What Price Glory	501	Phillips, Wendell C.: Economics of Early Lip Reading	250
Kummel, M.: Medicolegal Aspects of Disease Aggravated by Trauma	546	Pinneo, Frank W.: Annual Report on Automobile Insurance	Sept. Sup. 39
Medicolegal Aspects of Soft Tissue Injury	427	Annual Report on Health and Accident Insurance	39
Kurtz, Arthur D.: The Foot and Its Relation to Bodily Disorders	687	Discussion of Thymus Gland Conditions in Children..	303
Lathrop, F. W.: Discussion of Blood Transfusion....	48	Preliminary Report of Committee on Life, Health and Accident and Automobile Insurance	416
Discussion of Cane Sugar in Infant Feeding	859	Pollak, B. S.: Discussion of Pulmonary Tuberculosis..	956
Discussion of Eczema in Infants	200	Lung Complications of Upper Respiratory Tract ..	898
Discussion of Influenzal Meningitis	313	Polowc, David: Banti's Disease	330
Fatal Poisoning by Oil of Wintergreen	303	Pomeranz, R.: Discussion of Atresia of Esophagus ..	861
Lathrope, George H.: Discussion of Specialist's Fees..	4	Potter, B. P.: Discussion of Pulmonary Tuberculosis..	955
Discussion of Influenzal Meningitis	313	Potter, Ellen C.: Discussion of Private Physician in Community Health Program	846
Lawrence Joseph S.: County Health Units	596	Pyle, Wallace: Discussion of Industrial Eye Injuries.	766
Le Bel, Louis J. B.: Discussion of Heredosophilis ..	310	Origley, Frederic I.: Discussion of Poliomyelitis	923
Lee, F. P.: Primary Diphtheritic Vaginitis in Children	477	Relation of Physician to Hospital	673
Leshner, Mabel G.: Discussion of School Health Program	821	Rados, Andrew: Discussion of Cataract Extraction...	854
		Discussion of Retrobulbar Neuritis	854
		Ranson, B. B., Jr.: Newer Anesthesia	386

INDEX

Read, Hilton S.: Reducing and Gaining Weight	132
Kedway, Laurance D.: Eye, Pathology of	958
Reik, Henry O.: Annual Report of Editor and Executive Secretary	20
Challenging Misleading Advertisements	344
Collateral Reading	(see list)
Editorials	(see list)
Human Life Held Cheaply	73
Lighthouse Observations	(see list)
Medical Society of New Jersey vs. Legislative Organizations	784
Method of Procedure for Organization of a Section of the Medical Society of New Jersey	408
Presessional Report of Editor and Executive Secretary	411
Post-Graduate Courses	244
Reissman, E.: Discussion of Thymus Gland Conditions in Children	303
Reitter, George S.: Esophagus, Congenital Atresia of	859
Ripps, Maurice L.: Discussion of Influenzal Meningitis	313
Discussion of Treatment of Eczema in Infants	200
Rogers, Lawrence H.: Diphtheria Carriers Quickly Cleared up by X-Rays	213
Rothschild, Karl: Discussion of Mesenchymoma	777
Rubinow, S.: Letter re Hospital Directors vs. the Medical Staff	604
Unemployment in Relation to Medical Profession	171
Rypins, Harold: Grievance Committee	272, 353
Salasin, Samuel A.: Sustained Hypercreatinemia	42
Scanlan, D. Ward: Discussion of Functional Indigestion	745
Shapiro, Joseph: Discussion of School Health Program	819-22
Poliomyelitis	918
Schaffner, William G.: Committee on Honorary Membership, Presessional Report of	417
Discussion of School Health Program	819-22
Presessional Report of the Public Health Conference Committee	414
Report of Committee on Public Health	Sept. Sup. 42
Schlichter, Charles H.: Discussion of Symposium on Sinus Diseases	112
Schroeder, Louis C.: Discussion of Private Physician in Community Health Program	843
Schulsinger, S.: Discussion of Lenticonus Posterior	773
Schwarz, Berthold T. D.: Discussion of Poliomyelitis	923
Membership, Junior and Probationary	675
Sharp, R. L.: Discussion of Peptic Ulcer	750
Sheehan, J. Eastman: Correction of Unilateral Facial Paralysis	556
Sherman, Elbert S.: Discussion of Industrial Eye Injuries	768
Discussion of Neuritis	864
Discussion of Ocular Manifestations of Focal Infection	213
Industrial Eye Injuries and Compensation Claims	761
Role of the General Practitioner in Conservation of Vision	134
Shipman, J. S.: Cataract Extraction	852
Discussion of Cataract Extraction	855
Silvers, H. L.: Discussion of Simple Fractures	835
Smyth, Calvin: Discussion of Compound Fractures	838
Snedecor, Spencer T.: A Medic in the Transatlantic Yacht Race	67
Responsibility of County Society to School and School Physician	822
Sommer, George N. J.: Discussion of Surgery	760
Report, Committee on Workmen's Compensation	Sept. Sup. 40
Stanley, Phyllis: Food Poisoning	333
Stewart, W. Blair: Discussion of Functional Indigestion	747
Functional Indigestion	743
Stone, A. L.: Discussion of School Health Program	820
Strelinger, Alexander: Mediastinal Tumors	122
Strickland, George W.: Accessory Nasal Sinus Infections in Children	108
Discussion of Symposium on Sinus Diseases	115
Sturr, Robert P.: Value of X-Ray Examination in Diseases of the Biliary and Gastro-Intestinal Tracts	214
Subin, Harry: Spinal Anesthesia	450
Taneyhill, E. C.: Discussion of Common Cold	827
Mid-Season Report	153
Presessional Report of the Field Secretary	413
Regular Annual Report of Field Secretary	Sept. Sup. 18
Teahan, Roscoe W.: Cancer of the Breast	620
Tracy, George T.: What Price Glory	501
Trippie, C. M.: Analysis of 300 Cases of Pain Treated by Magnesium Combinations	50
van Beuren, Jr., F. T.: Symptoms and Diagnosis of Acute Intestinal Obstruction	478
van Saun, Anna I.: Primary Diphtheritic Vaginitis in Children	477
Varney, F. L.: Country Practice	68
Vinciguerra, Michael: Medicine and the Sociologic Aspect of Insanity, Feeble-mindedness, and Anti-Social Behavior	377
Vroom, Wm. L.: Testimonial Dinner to	87
Walker, Evelyn: Discussion of Private Physician in Community Health Program	847
Wallhauser, H. J. F.: Discussion of Cutaneous Epithelioma	39
Discussion of Heredodysphilia	310
Wammonck, Hoke: Cancer of the Cervix	623
Waters, Edward G.: Certification of Specialists	591
Committee on Expert Testimony	Sept. Sup. 49
Plan for Certification and Control of Specialists	Sept. Sup. 47
Specialists and Specialism	252
Toxemias of Pregnancy	576
Weiss, Selma: Diabetes Mellitus, Office Treatment of	391
Wheeling, William S.: Goiter, With Special Reference to Thyrotoxicosis	689
Whitcomb, C. A.: Cancer Malignancy	626
White, Winton J.: Health in Education from View-point of School Administrators	16
Wilbur, F. P.: Manganese Poisoning	48
Wilbur, Ray Lyman: Cost of Medical Service as Problem for Profession to Solve	424
Wilbur, W. L.: Discussion of School Health Program	821
Wilkes, Le Roy A.: Discussion of Private Physician in Community Health Program	846
Private Physician in the Community Health Program	839
Wood, E. Le Roy: Discussion of Sinus Disease in Children	108
Discussion of Symposium on Sinus Diseases	113
Sinus Disease in Children	103
Woodruff, S. R.: Discussion of Bladder and Prostatic Carcinoma	121
Relation of Doctor to Public	671
Yazujian, D. M.: Glaucoma	693
Zehnder, Charles: Discussion of Ocular Manifestations of Focal Infection	211

B

Board of Medical Examiners:	
Annual Report of	Sept. Sup. 45
Report of Prosecutions	79, 513, 678
Setting the Record Straight	499
Board of Trustees, Report of Special Meeting, Sept. Sup.	52
Book Reviews:	
Autobiography of a Surgeon—John Morrison Dodd	987
Gastro-Intestinal Tract—William Gerry Morgan	987
Medical Books are Written by Specialists	987
New Book Reviews	986
Urographic Urology—Stanley R. Woodruff	987
Budget and Finance Committee Report	Sept. Sup. 28
By-Laws, Amendments Adopted	Sept. Sup. 50

C

COLLATERAL READING—	
An Encyclopedia for Summer Reading	668
A Wanderer in Bookland	969
Brave New World, Aldous Huxley	585
Encyclopedia of Social Sciences	668
Fads, Frauds and Physicians, T. Swann Harding	71
Huxleys in Biology and Literature	585
Reading, Writing and Remembering—E. V. Lucas	969
The Great Game of Grab—Edward S. Martin	871
What About Lawyers?—Alice Hamilton	797
What Dare I Think?—Julian Huxley	586

COMMITTEE REPORTS—

Board of Trustees	Sept. Sup. 23
Budget and Finance	Sept. Sup. 28
Committee on Hospitals and Medical Education (Special Report)—Samuel A. Cosgrove	590
Constitution and By-Laws	Sept. Sup. 2
Delegates to American Medical Association	Sept. Sup. 44
Editor and Executive Secretary	Sept. Sup. 20
Field Secretary	Sept. Sup. 18
Health and Accident Insurance	Sept. Sup. 39
Hospitals and Medical Education	Sept. Sup. 33
Indemnity Insurance	Sept. Sup. 37
Judicial Council	Sept. Sup. 26
Maternal Welfare	Sept. Sup. 41
Post-Graduate Education	Sept. Sup. 33
Program and Arrangements	Sept. Sup. 1
Publication	Sept. Sup. 32
Public Health	Sept. Sup. 42
Scientific Work	Sept. Sup. 2
Secretary	Sept. Sup. 16
State Board Medical Examiners	Sept. Sup. 45
Treasurer	Sept. Sup. 27
Welfare Committee	Sept. Sup. 26
Workmen's Compensation	Sept. Sup. 40

COMMUNICATIONS—

Alpha Omega Alpha Honorary Fraternity	876
American Academy of Pediatrics; An Explanation	271
American Board for Ophthalmic Examinations	270
American Board of Obstetrics and Gynecology	271, 808
American College of Physicians to Award Prize to Dr. O. T. Avery	268
American Public Health Association Meeting	678
American Society for Control of Cancer	876
Authentic Figures on Nation's Drug Purchases	357
Child Hygiene Nurse	359
Chronic Disease Conditions in New Jersey—William J. Ellis	605
Cleveland Clinic Foundation Fellowships in Otolaryngology	270
Cook County Hospital Summer Clinics	431

District Health Offices Abolished—L. W. Knight	708	Facial Deformities, Important Factors in Surgery of	323
Dues, New Members	808	Acquired and Congenital	325
Genesis of Social Insurance	78	Facial Paralysis	225
Hospital Directors vs. the Medical Staff—S. Rubinow	604	Fatal Poisoning with Oil of Wintergreen	305
John B. Deaver Perpetual Memorial Fund	606	Fees, Specialists and Kindred Annoyances	4
Maternal Welfare	270	Fractures, Compound	838
Mental Hygiene	511	Fractures, Simple	835
Nervous Breakdown—George P. Boulden	807	Hemorrhages in the Vitreous of Young People	324
New Jersey Supreme Court Holds Sweet Spirit of Nitre	513	Heredosyphilis, Treatment of	310
and Essence of Peppermint to Be Medicines	513	Indigestion, Functional	745
New York Academy of Medicine, 1932 Graduate Fort-	514	Industrial Eye Injuries	766
night of	514	Larynx and Hypopharynx	897
Night Nursing in Hospitals—Blanche Pfefferkorn,	875	Lenticonus Posterior	773
R. N.	875	Meningitis from Ear or Nose	932
Nursing Fee Plan, Orange Memorial Hospital	975	Meningitis, Influenzal	313
Post-Graduate Courses, State Medical Society—Rutgers	170	Mesenchymoma	777
Post-Graduate Courses; Letter from Dr. Cosgrove	975	Neuritis, Retrobulbar	963
Social Insurance	171, 269, 358, 431, 510, 603, 677, 708, 806, 874, 974	Ocular Manifestations of Focal Infection	211
Social Work, New Jersey Conference of	876	Poliomyelitis	923
Statement from Dr. Stanley Nichols, Chairman of the	269	Private Physician in Community Health Program	843
Pediatric Section	269	Public Relations, Looking at Both Sides of	165
Unemployment in Relation to the Medical Profession	171	Role of the General Practitioner in Conservation of	139
Violations of Medical Practice Act	79, 513, 678	Vision	819
CONFERENCES—		School Health Program	108
Annual Conference of State and Local Health Officials	266	Sinus Disease in Children	112
County Society Secretaries and Reporters (Editorial)	66	Sinus Diseases, Symposium on	760
Tristate Medical	157, 252, 593	Surgery	302
CONSTITUTION AND BY-LAWS—		Thymus Gland Conditions in Children, Symptomatology	294
Amendments to	Sept. Sup. 2	and Treatment	954
Minority Report	Sept. Sup. 5	Tonsil Problem	206
Second Reading, and Adoption	Sept. Sup. 50	Tuberculosis, Pulmonary, Collapse Therapy in	750
CORRECTION—		Tumors Involving the Optic Chiasm	911
Ophthalmic Examinations	606	Ucer, Peptic	911
COUNCILOR DISTRICT MEETINGS—		Upper Respiratory Tract Complications	911
Second Councilor District	610	E	
CURRENT EVENTS—		ECONOMICS—	
American Medical Association House of Delegates Re-	714	Cost of Medical Service as Problem for Profession to	424
Annual Conference of State and Local Health Officials	266	Solve	68
Costs of Medical Care	351	Country Practice	583
Essex County Tuberculosis League, Annual Meeting	506	Dispensary Service in New York City	250
Glen Gardner	873	Economics of Early Lip Reading	665
Hudson County Society's Publicity Campaign	671	Insuring Hospital Care and Costs—C. Rufus Rorem	342
Post-Graduate Courses, Jersey City Medical Center	873	The Problem of Medical Charity	411
Tristate Medical Conference	157, 252, 593	Editor: Preseasonal Report of	20
Welfare Committee Minutes	75, 264, 349, 589	Editor and Executive Secretary, Annual Report, Sept. Sup.	23
D		Delegate to Centenary of the British Medical Association	23
DEATHS—		EDITORIALS—	
Anderson, William	990	A Critical Moment	662
Applegate, Asher T., 615 (Resolutions)	990	Advertising, False or Misleading	500
Armstrong, Samuel E.	444	Advertising, Group	502
Arthur, Francis M., 376 (Resolutions)	531	Annual Meeting of 1932	340
Buck, Abijah Orange, 376 (Resolutions)	290	Automobile Fatalities	782
Campbell, Wellington (Resolutions)	616	British Medical Association Centenary	581
Memorial to	682	British Medical Association, Centenary of	963
Cushier, Elizabeth	990	Child Welfare Programs	869
Davenport, George S.	990	Country Practice, The Other Fellow	151
Eaton, Alvin Richard	987	County Society Publicity	410
Goldberg, Eugene Holden	615	County Society Secretaries, Conference of	66
Higgins, Joseph F.	530	Creating an Attitude	661
Lamson, William J.	100	Economic Problems of the Moment	582
Lehlbach, Charles Frederick	810	Hay Fever, Will You Help to Prevent in Your Com-	500
Low, Frederick C.	290	munity	338
Martine, Frank L.	732	History in the Making	338
Mercer, Archibald (Resolutions)	531	History, You Are Making It Today	341
Newman, Emanuel D.	989	Hospital Management, Lay Control in	340
Post, Walter (Resolutions)	531	Human—Like the Rest of Us	963
Pyle, William L.	990	Insurance, Safeguard Yourself by	66
Powell, William M.	100	Journal, Writing for the	247
Smith, Thomas Jefferson	616	Keeping Up to Date Scientifically	151
Thompson, D. Clark	376	Leadership: Personal and Collective	961
Thompson, Raymond J.	892	Legislation, Meeting It Half-way	781
Traub, Paul	616	Maternal Morbidity and Mortality	709
Delegate to Centenary of the British Medical Association	23	Message from the Secretary of the State Society—J.	65
Delegates to American Medical Association, Report	44	B. Morrison	246
Directory of Physicians in New York and Adjacent Ter-	48	New Year's Greeting from the President	149
DISCUSSION OF PAPERS—		Paying Extravagantly for a Name	865
Blood Transfusion in Septic Diseases of Children	48	Perhaps We Have the Solution	409
Cane Sugar in Infant Feeding	858	Post-Graduate Courses	867
Cancer of the Breast	958	Post-Graduate or University Extension Courses, State	151, 410
Carcinoma, Bladder and Prostatic	121	Society-Rutgers University	866
Cataract Extraction	854	Private Physicians and Community Health Programs	151
Child Health and Protection	103	Program for the Annual Meeting	499
Common Cold in the School	826	School Physicians, Message to	502
County Society to School and School Physician, Re-	824	School Physicians, Public	150
responsibility of	200	Setting the Record Straight	868
Eczema in Infants, Treatment of	39	Specialism	962
Epithelioma, Cutaneous	860	Specialism, Control of	149
Esophagus, Congenital Atresia of	860	Specialism, Guidance of	337
		Specialism, Regulation of	501
		Specialists and Specialism	245
		Tubercle Bacillus, Discovery of the	53
		What Price Glory	
		Workmen's Compensation Act, Revised	
		Election of Officers	
		ESTHETICS—	
		An Old-Fashioned, Good-Fashioned Word—Contentment	71
		Consider the Lilies	344

Feminine Revolt	251	Attention to the Pre-School Child—Benjamin Bashinski	80
Grand Opera by Radio	135	Banti's Disease—David Polowe	330
Indigestible Music	666	Barbituric Acid Reactions (Lighthouse Observations)	252
Pester Advertising	968	Bladder and Prostatic Carcinoma—B. S. Barringer	115
Sea-Gulls	796	Blood Transfusions in Septic Diseases of Children— Lewis W. Brown	44
The Long Brown Path—Raymond H. Torrey	583	Building Together—Wesley J. Barrett	235
ETHICS—		Cancer Malignancy—C. A. Whitcomb	626
A Contribution from the Press	68	Cancer Malignancy, General Effects of—Willard S. Hastings	617
Adversity	155	Cancer of the Breast—Roscoe W. Teahan	620
Advertising	967	Cancer of the Breast, Bone Metastasis in—E. E. Downs	957
Being Alive Is an Experience Not to Be Missed	710	Cancer of the Cervix—Hoke Wamcock	623
Mental Metabolism	870	Cancer of the Skin—Elwood E. Downs	619
Morality Is a Private and Expensive Luxury	794	Cane Sugar in Infant Feeding—David P. Evans	856
Our Ethical Complex	504	Can the Qualifying and Certifying of Specialists Be Conducted by National Examining Boards and the Colleges of Surgery and Medicine—Thomas J. Harris	254
Regrets	342	Carcinoma of the Breast with Unusual Metastasis— Robert A. Kilduffe, Harold S. Davidson, David B. Allman	701
What Is Greed?	424	Cataract Extraction—J. S. Shipman	852
Executive Secretary:		Challenging Misleading Advertisements—Henry O. Reik	344
Presessional Report of	411	Colitis—Matthew White Perry	635
Regular Annual Report of	Sept. Sup. 20	Common Cold in the School—Julia C. Mutchler	824
Reports to the Welfare Committee	75, 264, 349, 589	Conditional Reflex of the Cerebral Cortex—William H. Hicks	21
Exhibition of Scientific Material	Sept. Sup. 57	Congenital Cysts of the Liver—Oliver K. Parry	560
Expert Testimony, Committee to Consider	Sept. Sup. 49	Cost of Medical Service as Problem for Organized Profession to Solve—Ray Lyman Wilbur	424
F		Country Practice—F. L. Varney	68
Field Secretary:		County as Unit for Public Health Service—Joseph W. Mounin	560
Annual Report of	Sept. Sup. 18	County Health Units—Joseph S. Lawrence	596
Creating an Attitude	661	Credulity of Rhinologists Ament the Sinuses—Charles S. McGivern	111
Mid-Season Report	153	Cutaneous Epithelioma—Bart M. James	32
Presessional Report	413	Deaths in First Month of Life—Julius Levy	935
G		Diabetes Mellitus, Office Treatment of—Selma Weiss	391
Grievance Committee—Harold Rypins	272, 353	Diathermy in Eye, Ear, Nose and Throat Affections— B. E. Failing	470
H		Diphtheria Carriers Quickly Cleared Up by X-Rays— Lawrence H. Rogers	213
Health and Accident Insurance, Annual Report on	Sept. Sup. 39	Diphtheria Hit by Depression (Public Relations)	271
Honorary Membership Committee, Presessional Report of	417	Diphtheria, Vaginal—L. A. Eigen	778
I		Eczema, Treatment of in Infants by a Milk-Free Diet— Julius Levy, A. S. Finkelstein	189
Inauguration of President Lippincott	Sept. Sup. 54	Electrocardiograms of Mental Patients—Louis Levin	140
INSURANCE—		Esophagus, Congenital Atresia of—George S. Reitter	859
Compensation Insurance	354	Etiologic Conception of the Disease-Entity—H. B. Logie	225
Committee on Life, Health, and Accident, and Auto- mobile Insurance, Presessional Report of	416	Essential Pruritis, Etiology and Treatment of—Bart M. James	454
Defense and Indemnity	Sept. Sup. 37	Eye, Pathology of—Laurance D. Redway	958
Safeguard Yourself by	963	Facial Deformities, Important Factors in Surgery of Acquired and Congenital—Jacques W. Maliniak	314
J		Facial Paralysis—Edgar P. Cardwell	220
Judicial Council, Reports of	Sept. Sup. 26	Facial Paralysis, Correction of Unilateral—J. Eastman Sheehan	556
L		Facts in a Child Health Program of Interest to Health Officials—A. W. Knight	9
LIGHTHOUSE OBSERVATIONS—		Fads, Frauds and Physicians—T. Swann Harding	71
Appendicitis, High Mortality in	156	Fatal Poisoning with Oil of Wintergreen—Frederic W. Lathrop	303
Barbituric Acid, Toxic Reactions Caused by the De- rivatives of	252	Fees, Specialists and Kindred Annoyances—Elias J. Marsh	1
Cancer Problem—Howard A. Kelly	802	Female Sex Hormone Therapy—John Cooke Hirst	574
Dietetic Import of Roughage and Vitamins—Walter C. Alvarez	587	Findings of the Governor's Conference on Child Health and Protection—Frank C. Johnson	101
Diphtheria, Preschool Age	711	Fitkin-Morgan Memorial Hospital Dedication—H. A. Kazmann	187
Hard-of-Hearing—M. Raymond Kendall	669	Food Poisoning—Ferdinand C. Ding, Phyllis Stanley	333
Hay-Fever, Cod-Liver Oil and Yeast for—Dr. Kitsuta	971	Foot and Its Relation to Bodily Disorders—Arthur D. Kurtz	686
Human Life Held Cheaply	73	Fractures, Compound—Irvin E. Deibert	836
Nervous World	971	Fractures, Simple—John S. Irvin	831
Obstetric Complications, Prevention of by Diet and Exercise	346	Functional Disturbances of the Heart—H. R. Liven- good	325
Rickets, Irradiated Milk in Prevention and Treatment of	505	Gas Bacillus Bacteremia Following Abortion—Robert A. Kilduffe, David B. Allman	742
Tonsillectomy by Electric Knife—Howard Everett Blanchard	505	Genesis of Social Insurance—Edward H. Ochsner	78
M		Glaucoma—D. M. Yazujian	693
Maternal Welfare Committee Report	Sept. Sup. 41	Goiter, with Special Reference to Thyrotoxicosis—Wil- liam S. Wheeling	689
Committee Reports of:		Granulocytopenia—Jennings S. Lincoln, Horace O. Bell	231
Monmouth County	288	Hay-Fever, Seasonal—Grafton Tyler Brown	483
Morris County	289	Health in Education from Viewpoint of School Admin- istrators—Winton J. White	16
Presessional Report of	415	Heart in Relation to Physical Education—Mabel Grier Leshner	913
N		Hemorrhages in the Vitreous of Young People—Charles Franklin Adams	323
Nominating Committee, Report of	Sept. Sup. 53	Heredosyphilis—F. J. McCanley	306
O		Hip Joint, Dislocation of—William G. Doran	564
Officers:		Human Life Held Cheaply—Henry O. Reik	73
Nominated	Sept. Sup. 53	Indigestion, Functional—W. Blair Stewart	743
Elected	Sept. Sup. 53	Industrial Eye Injuries and Compensation Claims—El- bert S. Sherman	761
ORIGINAL ARTICLES—		Influenza Meningitis—Frank C. Johnson	311
Accessory Nasal Sinus Infections in Children—George W. Strickland	108	In Memoriam of Robert Koch—Felix Baum	238
Acute Empyema Thoracis—V. E. Johnson	382	Insulin in Tuberculosis—Frederick M. Allen	335
A Medic in the Transatlantic Yacht Race—Spencer T. Snedecor	67	Koch, Robert In Memoriam—Felix Baum	238
Analysis of 300 Cases of Pain Treated by Magnesium Combinations—C. M. Tripp	50		
Anaphylaxis to Acute and Chronic Disease, Relation of—Henri Ernest Abel	474		
Anesthesia, Newer—B. B. Ranson, Jr.	386		
Antitoxin Serum in Treatment of Pneumonia—C. V. Craster	849		

Larynx and Hypopharynx—Henry Boylan Orton	893
Lenticonus Posterior—Elias J. Marsh	769
Lip Reading—Wendell C. Phillips	250
Liver Function Tests—Maclyn Baker	648
Looking at Both Sides of Our Public Relations—William Rowland Davies	157
Lung Complications of Upper Respiratory Tract—B. S. Pollak	898
Maggots and Other Insects in Medicine—Hyman I. Goldstein	145
Manganese Poisoning—F. P. Wilbur	48
Maternal Welfare—Arthur W. Bingham	270
Maternity Care—Frederick D. Fahrenbruch	573
Medical Charity, The Problem of—Linn Emerson	342
Medical Economics, Random Thoughts on—Linn Emerson	733
Medicine and the Sociologic Aspect of Insanity, Feeble-mindedness, and Anti-Social Behavior—Michael Vinciguerra	377
Medicolegal Aspects of Disease Aggravated by Trauma—M. Kummel	546
Medicolegal Aspects of Soft Tissue Injury—M. Kummel	127
Membership, Junior and Probationary—B. T. D. Schwarz	675
Meningitis from the Ear or Nose—Wells P. Eagleton	924
Mesenchymoma—W. Klein	774
Method of Procedure for Organization of a Section of the Medical Society of New Jersey—Henry O. Reik	408
Negro Infant Mortality—Clarence S. Janifer	932
Neuritis, Retrobulbar—James A. Fisher, R. Winfield Baeseman	861
Ocular Manifestations of Focal Infection—Samuel T. Hubbard	207
Optic Nerve Pathology and Sinus Disease—Case of Neuroretinitis—Henry Z. Goldstein	704
Ovarian and Anterior Pituitary Hormones in Sexual and Reproductive Cycles—P. D'Acerno	394
Pediatric Problems—Stanley Nichols	269
Pelvic Inflammatory Disease—Robert A. Mackenzie	569
Peptic Ulcer, Management of—Thomas K. Lewis	747
Personal Element in Medical Economics—H. Sheridan Baketel	5
Physician and Workmen's Compensation Act—Maurice S. Avidan	458
Poliomyelitis—Mather Cleveland	643
Poliomyelitis—Joseph Schapiro	918
Polyposis of Small and Large Bowel—Vincent Farmer	463
Practical Phases in Utilization of the Clinical Laboratory—Robert A. Kilduffe	490
Pregnancy, Late Toxemias of—Edward G. Waters	576
Presidential Address—John F. Hagerty	533
Prevention of Obstetric Complications by Diet and Exercise—Arthur W. Bingham	346
Primary Diphtheritic Vaginitis in Children—F. P. Lee, Anna I. van Saun	477
Private Physician in the Community Health Program—Le Roy A. Wilkes	839
Professional Building in East Orange—John Hammond Bradshaw	248
Psychoneuroses in Relation to General Medicine—Alfred Gordon	697
Reducing and Gaining Weight—Hilton S. Read	132
Relation of Doctor to Fellow-Practitioners—O. R. Blanchard	673
Relation of Doctor to Individual—John M. Cassidy	672
Relation of Doctor to Medical Society—C. B. Kelley	675
Relation of Doctor to Public—S. R. Woodruff	671
Relation of Physician to Hospital—Frederic J. Quigley	673
Responsibility of County Society to the School and School Physician—Spencer T. Snedecor	822
Retina, Detachment of the—Benjamin B. Adelman	445
Rickets, Irradiated Milk in Prevention and Treatment of—Esther B. Hardisty	505
Ringworm of Feet and Groin—Cedric C. Carpenter	683
Roentgen Ray Consideration of Colon—Louis J. Gelber	551
Roentgen Ray Diagnosis—Ernst A. May	631
Role of the General Practitioner in Conservation of Vision—Elbert S. Sherman	134
School Health Program for Physician—Allen G. Ireland	811
Sinus Disease in Children—E. Le Roy Wood	103
Specialists and Specialism—Edward G. Waters	252
Spinal Anesthesia—Harry Subin	459
Spontaneous Dislocation—Lewis Greenberg	327
State Medicine, Some Factors in—H. Sheridan Baketel	538
Study of Report of Governor's Special Health Commission—Thomas P. Farmer	594
Surgery, Recent Advances in—G. Blackburne	751
Sustained Hypercreatinemia—Robert A. Kilduffe, Samuel A. Salasin	42
Symptomatology and Treatment of Thymus Gland Conditions in Children—Paul Hosp	295
Symptoms and Diagnosis of Acute Intestinal Obstruction—F. T. van Beuren, Jr.	478
Syphilis, Concerning the Serologic Study of—Robert A. Kilduffe	398
Syphilis, Treatment of Early—N. B. Heller	468
The Other Fellow—Joseph M. Kuder	59
Thyroid Considerations—Leslie E. Myatt	829

Tonsil Problem—Chester Brown	291
Trichinosis—Harry Halprin	217
Tubercle Bacillus Discovery—John F. Hagerty	337
Tuberculosis, Pulmonary, Collapse Therapy in—Samuel B. English, Paul Geary	938
Tumors Involving the Optic Chiasm—Thomas H. Johnson	200
Tumors, Mediastinal—Alexander Strelinger	122
Undulant Fever, Laboratory Test for—J. Lynn Mahaffey	170
Unemployment in Relation to Medical Profession—S. Rubinow	171
Upper Respiratory Tract, Complications Following Operations—Richard H. Dieffenbach	908
Value of X-Ray Examination in Diseases of the Biliary and Gastro-Intestinal Tracts—Robert P. Sturr	214
Veterans' Free Medical Care—George T. Tracy, Joseph M. Kuder	501
What Price Glory—George T. Tracy, Joseph M. Kuder	501
Workmen's Compensation Act, Medical Aspects of the—M. S. Avidan	143
Xeroderma Pigmentosum—Stanley Nichols	41
Ophthalmology, State Society Section	Sept. Sup. 59
Otology, State Society Section	Sept. Sup. 59

P

Personals	Jan xxi.; June xxi.
Pediatrics, State Society Section	Sept. Sup. 62
Plan for Certification of Specialists	Sept. Sup. 47

POEMS—

A Thought on Standards	64
Earthy Things	579
Forget It	148
Jersey Lights	498
On the Shore	864
The Family Doctor	407
Winter Day	960
Post-Graduate Courses	865
Jersey City Medical Center Series	873
State Society-Rutgers University Post-Graduate or University Extension Courses	170, 409
Success of	244
Post-Graduate Education, Report of Committee	Sept. Sup. 33

PRESESSIONAL REPORTS—

Committee on Honorary Membership	417
Committee on Life, Health and Accident, and Automobile Insurance	416
Committee on Scientific Program	411
Editor and Executive Secretary	411
Field Secretary	413
Maternal Welfare Committee	415
Public Health Conference Committee	414
Welfare Committee	413
Presidential Address, John F. Hagerty	533
Publication Committee Report	Sept. Sup. 32
Public Health Committee Report	Sept. Sup. 42
Public Health Conference Committee, Preessional Report of	414

PUBLIC RELATIONS—

Aeroplane, Travel and Traffic by	804
American Academy of Physical Therapy	729
An Inspiration and an Indictment	508
Auto Accidents and Vision	508
Aviation Medicine	601
Bar Group Advertising	429
Bone and Radiologic Conference	729
Cancer Concern Loses Suit	354
Council on Pharmacy and Chemistry, Support the	168
Dental Advertising	429
Diphtheria, Depression Hits	271
District Health Officers Named for 3 Areas	354
Family Doctor, Ye "Old-Time"	971
For Medical Freedom	429
Grievance Committee	272, 353
Group Medical Care	168
He Pays	355
Higher Than Ever	355
Hospitalization, New Angle on	972
Insurance, Compensation	354
Its Own Excuse for Seeking	354
Margaret Hague Maternity Hospital	972
Medical Costs	355
Noise and Health	805
Public Doctoring Self More Than Ever	601
Public Health	430
Public Relations Committee, Activities of	728
Public Relations, Principles to Guide Physicians in	679
Quacks, Germany Not Without Its Share	972
State Hospital Association, Action by	729
State Medicine	168
State Medicine, Proposal of—Samuel A. Tannenbaum	507
Temperamental Drivers	508
Veterans' Health Legislation	727
We Nominate	508

INDEX

R

Radiology, State Society Section	Sept. Sup. 66
Rhinolaryngology, State Society Section	Sept. Sup. 59

S

SCHOOL HEALTH DEPARTMENT—

Co-ordination	430
Excerpts of Interest	77
High School, Organizing for Health in	267
School Physicians, Activities for	169
School Physicians' Program	973
School Physicians' Program, Notes on	508
School Physicians' Program of Work	805
Weighing and Measuring	355
School Physicians, State Society Section	Sept. Sup. 64
Scientific Exhibit	Sept. Sup. 57
Scientific Sessions, Report of	Sept. Sup. 54
Secretary:	
A Message from the Secretary of the State Society	709
Annual Report of	Sept. Sup. 16
Section on Ophthalmology, Otology and Rhinolaryngology	59
Section on Pediatrics	Sept. Sup. 62
Section on Radiology	Sept. Sup. 66
Section of School Physicians	Sept. Sup. 64

SOCIETY REPORTS—

Local Societies:

Academy of Medicine of Northern New Jersey	91, 183, 282, 367
Eye, Ear, Nose and Throat Section	92, 183, 367, 436, 881, 982
Surgical Session	367
Associated Physicians of Montclair and Vicinity	280, 368, 439, 521, 611
Atlantic City Hospital Staff	84, 177, 275, 362
Babies' Hospital, Coit Memorial	440, 520
Bayonne Hospital Clinical Conference	92, 185, 283, 372, 523, 613, 886
Doctors' Club of Newark	182, 282, 371
Homeopathic Hospital of Essex County	280, 368, 437, 518, 611
Newark Beth Israel Hospital	370, 881
New Jersey Orthopedic Hospital and Dispensary	371
North Hudson Hospital Clinical Society	94, 730, 884
Orange Mountain Medical Society	282
Rutgers Medical Club	97, 187, 288, 442, 528, 614, 985
St. Michael's Hospital Staff	364
Summit Medical Society	376
Tricounty Medical Association	892

County Medical Societies:

Atlantic	83, 176, 276, 362, 433, 516, 878, 978
Bergen	86, 179, 279, 434, 517, 809, 879, 980
Burlington	180, 364, 517, 809, 980
Camden	89, 181, 279, 365, 434, 518, 610, 981
Cape May	279, 518, 981
Cumberland	181, 435, 681, 880
Essex	89, 182, 436, 611, 880, 981
Gloucester	89, 183, 282, 371, 440, 521, 810, 883, 983
Hudson	92, 183, 282, 371, 440, 521, 883, 983
Hunterdon	286, 526, 681, 984
Mercer	97, 187, 286, 374, 442, 526, 613, 888, 985
Middlesex	287, 526, 614, 888
Monmouth	98, 187, 288, 374, 443, 528, 614, 682, 986
Morris	98, 187, 289, 375, 443, 529, 615, 888, 986
Ocean	188, 529
Passaic	99, 188, 289, 375, 443, 530, 810, 888, 986
Salem	99, 289, 891
Somerset	99, 290, 444, 615, 891
Sussex	530
Union	100, 188, 444, 682, 891
Warren	530, 891

SPECIAL ARTICLES—

Advertisements, Challenging Misleading	344
Medical Society of New Jersey vs. Legislative Organizations—Henry O. Reik	784
Medic in the Transatlantic Yacht Race—Spencer T. Snedecor	67
Professional Building	248
Sussex Physicians. Drs. Pellett and Cole, Honored	965
Toronto General Hospital, A Visit to the—John Hammond Bradshaw	664
Treasurer, Special Report of	152
Specialists and Specialism	502, 149
Certification of—Edward G. Waters	590
Control of	150, 532
Guidance of	868
Plan for Certification	Sept. Sup. 47
Plan for Control of	Sept. Sup. 47
Regulation of	962

State Board of Children's Guardians, Matters Pertaining to	Sept. Sup. 49
--	---------------

STATE HEALTH DEPARTMENT—

Boarding House Licensing	874
Death Rate Diminishing	973
Hemolytic Streptococci, Laboratory Examination of Specimens for	356
Infantile Paralysis	806
Making and Sustaining a Record	268
Statistical Report	677
Trachoma	510
Undulant Fever, Laboratory Test for	170

T

Testimonial Dinners: To:

Drs. Pellett and Cole	965
Dr. Milton S. Ireland	178
Dr. William L. Vroom	87
Transactions, Annual Meeting	Sept. Sup. 1-76
Travel Talk:	
A Medic in the Transatlantic Yacht Race—Spencer T. Snedecor	67
Treasurer: Annual Report of	Sept. Sup. 27
Presessional Report	503
Special Report	152
Tristate Medical Conferences	157, 252, 593
Trustees, Annual Report	Sept. Sup. 23

W

WELFARE COMMITTEE—

Annual Report	Sept. Sup. 26
Minutes of December Meeting	75
Minutes of January Meeting	264
Minutes of March Meeting	349
Minutes of May Meeting	589
Presessional Report of the Welfare Committee	413
Widows and Orphans Society Annual Report	660

WOMAN'S AUXILIARY—

Advertisements, False and Misleading—T. Swann Harding	808
Announcement from the President	274
Annual Meeting, Transactions of	Sept. Sup. 67-76
Committee Chairmen Appointed	Sept. Sup. 76
Committee Reports:	
Corresponding Secretary	Sept. Sup. 68
County Branches	Sept. Sup. 70-74
Credentials and Registration	Sept. Sup. 69
Entertainment	Sept. Sup. 68
Hygeia	Sept. Sup. 68
Nominations	Sept. Sup. 75
Program and Health Education	Sept. Sup. 67
Public Relations	Sept. Sup. 69
Election of Officers	Sept. Sup. 75
Executive Board Meeting	Sept. Sup. 976
Hay-Fever	680
Item of Interest from the National Auxiliary	274, 359
President's Address	Sept. Sup. 74
Skin Food Game	606
Take This Journal Home to Your Wife	877
Task for the Woman's Auxiliary	514
The Questions—Who and Why?	432
Treasurer's Report	Sept. Sup. 67
What Progress Toward the Goal?	172
What Some Other States Are Doing	976
Woman's Auxiliary to the Medical Society of New Jersey	174

County Reports:

Atlantic	81, 274, 432
Bergen	82, 175, 274, 360, 608, 877
Burlington	274
Camden	175, 608, 877
Essex	275, 361, 432, 609, 977
Gloucester	275, 361, 433, 515, 977
Hudson	82, 175, 276, 361, 433, 516, 609, 877, 977
Mercer	82, 361, 610
Monmouth	361, 610
Ocean	82, 276, 610
Passaic	175, 276, 362, 516, 878, 977
Somerset	516, 978

Workmen's Compensation Act:

Medical Aspects of	143
Revision of	245
The Physician and the Workmen's Compensation Act	458
Workmen's Compensation Committee Report	Sept. Sup. 40

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FEES, SPECIALISTS, AND KINDRED ANNOYANCES*

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Paterson, N. J.

In this day, every institution and every feature of contemporary life is subjected to a vigorous, if not always sound, criticism, and in this universal process our own erstwhile respected profession has by no means been spared. Its ideals, its methods, and its achievements have all been "tried and found wanting" by many self-appointed and a few official critics, both within and without our own ranks. Fault-finding is always easy, and a certain amount of imperfection is unavoidable in human affairs. But, after all allowances are made, even the calmest and most loyal among us must recognize some characteristics of present-day practice that call for correction. Many remedies for various defects have been advocated, but I do not purpose to add to their number. The maxim may be held applicable here that the number of remedies suggested for any disorder is an index of their ineffectiveness. The present essay is intended as a contribution to the *pathology* of professional practice, leaving the *treatment* to other minds and to the future; for, I suppose that in economics and sociology, even as in ordinary medicine, a sound therapeutics must be based on knowledge of the under-lying pathology.

Two matters that have been generally rec-

ognized by the profession as objects of legitimate criticism are the practice of splitting fees and the over-development of specialism. A certain connection between these things is more or less readily apparent, but I hope to show not only that they are, at least in part, developed from a common source, but that this source is itself rooted in a basic error, to wit; a failure to discriminate properly the relative values of the two parts of which our professional work consists, namely, the intellectual and the manual or technical, commonly but not altogether correctly typified by medicine and surgery.

I am far from intending to re-open the old controversy between medicine and surgery, but I am going to use certain aspects of it to express the idea which I wish to convey. Let us, then, without further theorizing, proceed to cases. A physician is called to a patient with pneumonia. The patient is sick, has a severe attack, and the doctor is hard-pressed; has to exert the utmost of his resources; calls, for several days, twice a-day, perhaps 3 times a day at the critical stage, and spends considerable time at each visit; putting forth all his skill, knowledge, and experience to win the battle. Eventually, he sends in his bill. The amount of the bill will vary with the neighborhood, and the pay-ability of the patient, but I imagine that for most such cases in this state the doctor would be well pleased to get \$100. In the meantime, his neighbor, a young surgeon, performs a clean, simple appendectomy, which a house surgeon could do, and the patient recovers without any rise of temperature or cause for uneasiness to the surgeon. How about his fee? Probably \$100

* (Read at the 165th Annual Meeting of the Medical Society of New Jersey, in Asbury Park, June 5, 1931.)

would be the least that anybody could expect him to consider for any such patient above a charity listing. What is the lesson? Is the physician under-paid? Is the surgeon over-paid? I express no opinion except that there is a discrepancy—an unfairness.

Let me draw another example, from the experience of my own office. After careful examination of a patient, extending perhaps to 2 or 3 visits, and study of the findings, I make a diagnosis of incipient, simple glaucoma—a diagnosis that is not always easy in the early stages. I then proceed to the observation and management of the case, having always in mind the possible indications for operation. If these seem to me to appear—and I have to be the judge—I do a comparatively simple operation, followed by several dressings during the next few days, and collect a larger fee than I would otherwise get for perhaps several years' careful observation and judicious management, which might, nevertheless, save the patient useful vision and spare the strain and expense of a mutilating operation. For which course of action would I be paid too much or too little? A study in *relativity*, perhaps, but certainly of something relatively wrong.

What is the conclusion from these typical cases? Why, that *technical skill*, especially when tinged with the *spectacular* or the *dramatic*, is *better appreciated* and *more highly compensated* than *knowledge and intellect*. There is, to be sure, nothing new in this. It has been often demonstrated and long recognized in many other fields besides the practice of medicine. The present point is that we, who ought to know better and to try to counteract it, are ourselves largely responsible for its continuance and spread.

The late Abraham Jacobi used to say that anyone with reasonable manual dexterity could be a surgeon, but it takes brains to be a physician. While I would not endorse this dictum entirely, it does contain a considerable truth. In the Middle Ages, the surgeon was permitted to operate only with the consent of the physician and under his direction; the surgeon being, in effect, simply a technician. So stated, this sounds to us absurd, but as a fact

the rule still holds, the difference being that today the physician and the surgeon are embodied in the same man, for our medical profession today is one, and all are educated alike, however they may develop afterward. So, the surgeon approaches and studies his patient as a physician, in Jacobi's sense of the term, before deciding to treat him as a surgeon. But he is paid, not as a physician—i. e., for his brainwork—but as a surgeon, which means, in its Greek original, a handicraftsman.

A recent writer has cited an instance in which an ophthalmologist, examining a patient, diagnosed a brain tumor, and sent him to a neurologist, who confirmed the diagnosis, located the tumor, pronounced it operable, and referred him to a brain surgeon. If they were lucky, they may each have gotten \$25. The brain surgeon operated where the neurologist told him, and if his luck corresponded with theirs he got \$1000. Too much? I do not say that, but call Einstein again. If the neurologist is also the brain surgeon, he, personally, may be better off, but the principle is not affected: he will be paid for his technical skill rather than for his knowledge.

I would not be understood as under-valuing surgical skill. My own specialty is rated as a surgical branch, and we all know that good surgery requires technical ability of the very highest order, combined with courage, coolness, and judgment, beyond any other activity, all of which are fairly entitled to appreciation and compensation. But I do protest against the general custom of setting very modest manual ability so far above real intellectual ability, as is commonly done.

Bernard Shaw—a hostile critic of the medical profession if you choose, but a keen and intelligent one—has pointed out in one of his prefaces that the surgeon is the only person who is the final arbiter in determining whether he shall do a very high-priced piece of work at the expense of the person asking his advice. If we are honest, we must admit much force in this criticism. But it would be very largely answered if the present custom were reversed, and the consultation fee so balanced in relation to the operation fee as to

make it apparent that payment is made for the expert opinion based on knowledge and experience, and not chiefly for operative dexterity. If the surgeon were justly rewarded for his knowledge, he could reduce his operation fee more than proportionately, as the average result from all his cases would be greater: he would thus lessen the peak load on operative patients, and both show and win respect for himself and his profession, as an educated man rather than as a high-grade artisan. And then the physician, with equal knowledge, but only lacking in surgical technic, would receive fair recognition for his work also, and thus feel encouraged and enabled to give to each patient the study his condition deserves, instead of shipping him off to a specialist, and hurrying to—and over—the next patient, for the modest fee he is able to obtain. Both he and his patients would benefit by the changed outlook implied in replacing the present flat rate per visit with payment for the knowledge and judgment applied in each case. The great obstacle in the way of the new method, after the inertia of established custom, would be the difficulty of working out the practical application, but recognition of the principle would be a long step.

So far, there is little new in all this: however true, it has all been said before. I have chiefly tried to emphasize the inequity which results. I wish, now, to say that I believe fee-splitting is, in a considerable degree, an effort to rectify this inequity. I am not defending for an instant this dishonest and vicious practice, but I think it is, at least in part, an effort, however unwise or mistaken, to redress an injustice. If so, the rational way to combat it is not to prohibit it, but to correct the underlying cause. The futility of prohibition, applied to what is regarded as an injustice, is pretty thoroughly demonstrated in this state and nation today. The family physician naturally sees injustice when a case in which he, by hard work, has established a diagnosis, is taken out of his hands, himself set aside and perhaps lowered in his patient's esteem, by a man inherently no abler than himself, who collects for an hour's technical dramatics a fee greater than he can hope to obtain for

years of attendance. What wonder if he occasionally seeks for redress by the means readiest to hand—demanding a share of the spoil. If he and the surgeon were each to receive a fee proportionate to their respective shares in solution of the basic problem, rather than to the drama, this situation would not arise.

I am far from asserting that all so-called medical work is of a highly intellectual order simply because it is nonoperative. No more than the use of his hands raises a mediocre surgeon above a competent physician does their non-use have the reverse effect. Heaven knows there is as much poor brainwork done in medicine as there ever is in surgery; probably a good deal more. But the profession should itself recognize, and should then teach the people, that it is the ability or mediocrity which counts and is entitled to reward, not the use or non-use of instruments. Admittedly, it is difficult for the *mobile vulgus* to appreciate the merit of an Einstein or an Eliot as it does a Gertrude Ederle or a Rudolph Valentino, but at least we, if we are a learned profession, as we claim, can set a good example in our own field.

In this day, no rational person objects to specialism or specialists; the absolute necessity for them is too obvious. It is against the excessive development of this phase of practice—the exuberant granulation, so to speak—that criticism is directed, both lay and professional. A member of our Society, Dr. Saul Rubinow, of Newark, has well pointed out in a recent (March) number of our Journal, that one can find a hundred specialists to one expert; the average specialist, he says, is no expert, but only a practitioner in a limited field. This would be well enough, if he were so regarded, but this specialist charges for 2 minutes of ordinary routine work as much as the general practitioner gets for half an hour's careful examination of his patient. The expert, he says, is fairly entitled to reward for his ability, but, he adds, "one must admit that the present specialist's fee, which is charged often not for the nature of his services, but for his alleged higher standing, is not justified". Perhaps being interested, I am satisfied

to say that it is disproportionate. But undoubtedly the point is well taken, and our thanks are due to Dr. Rubinow for it. Real expert services are entitled to their reward, but a great deal of the specialist's work calls merely for special skill, not for special knowledge or thought, and even the latter is more often concentration than intensification. I repeat, once again, that there is no intention to disparage skill, even of the routine manual type, but only to ask for a reconsideration of its proper relation to the use of intellectual power.

Just how this is to be brought about, I confess I do not know. It can not be done by one man alone, as I find from experience when I have tried. My efforts in this direction have won only partial coöperation from my patients. Any reduction of operative fees is accepted without serious objection by them, but the same cannot be said of attempts to charge a reasonable fee for difficult diagnostic work, or other nonoperative procedure. Every optician is expected to "fit glasses", yet some refractive cases are among the most difficult I have, requiring more knowledge of medicine and of patients, more experience and judgment, than to do an ordinary iridectomy, for instance, but it would be hopeless, or worse, to expect either payment or recognition accordingly. There may be oculists who can get paid for an exhaustive study required to make an obscure diagnosis, or help the family physician to one, as much as for boiling a few instruments and then scattering around some blood-stained cotton pledgets, but not where I live. And yet, it is important for patients, in their own interest as well as ours, to recognize that our best work for them may not even call for the writing of a prescription, and still may be worth to them as much as a major operation.

Hardly better than by one man can the change be effected in one community, unless that community be unusually self-centered, and its profession unusually harmonious. Nor can it be done at one time, for education of the people in a new habit of thinking would be slow, and necessarily preceded by education of the profession itself, if we are to be the teachers of the people. For, so long as

the present custom continues, we must expect a good many men to regard scientific medicine as not worth the effort, and to prefer that kind of "specialism" of which Dr. Rubinow speaks so plainly, while really able and conscientious medical men, and the profession as a whole, suffer in the general esteem.

In his recent book on Universities, Abraham Flexner maintains that the most serious fault of the universities today is their failure to emphasize the distinction between acquiring a skill and developing intellectual power, and that this failure is at the bottom of their gravest present difficulties. Does not this charge lie against us, as a profession, also, and is it not at the bottom of some of our troubles? Have we not taught a too-willing people to place skill above intellect, and to reward it accordingly, and by reflection to stimulate the development of skill at the expense of that intellectual growth which is so much more important for ourselves and our patients alike? Why learn to cure a disease when we can score so much more brilliantly by cutting it out? For, as someone has well said, every operation, except for traumatism, is a confession of failure—a relief by mutilation, of a disorder which we do not know how to cure.

What can we do, to teach the people a truer perspective, where the universities have failed? I have no answer now to give, but some answer must be found if we are not to forfeit our proud and ancient claim to be called a learned profession; and whatever that answer be, before we can teach our patients, we must begin at home by teaching first ourselves. The traditional aphorism that "Everybody's business is Nobody's business" applies at least as much in the medical world as in any other. It is the hope of pointing out a fruitful field of effort, and of stimulating interest therein, rather than any expectation of solving the problem directly, that has led to the writing of this paper.

DISCUSSION

Dr. George H. Lathrope (Morristown): Dr. Marsh's outline of 2 serious professional economic problems is both simple and clearly stated. Disproportionate fees are not peculiar to the medical world. They are a feature of the human way of

doing things, and I disagree to some extent with Dr. Marsh, when he says that the remedy is for us to find and to apply. Prices are not fixed artificially, but are subject to the law of supply and demand. The difficulty lies first in the superficial but very human viewpoint that is attracted by and applauds the spectacular; and secondly, in the more rational, though poorly applied, view that if you want a thing done well go to the man who best knows how to do it well. The rapid development of advertising in the last 50 years has brought about much of this situation. As a nation, we trust and believe in advertising, and implicitly swallow all the advertiser says. Surgery has developed rapidly in this same era, and its accomplishments have been widely and justly heralded in all the press. It has been *news*—at times *big news*. Medicine has had no such dramatic developments that have in like manner caught the lay imagination. Consequently, demand has centered on surgery and has created surgical prestige—and demand begets higher prices.

Whatever remedy is required must come from a proper adjustment of values in the lay mind. We can probably do something to help this on, but time and public opinion, largely self-educated at that, will be the great levellers in the long run. Personally, I do not agree that we "are largely responsible for the continuance and spread" of this error.

Some things, here and there, we can do. We can value ourselves more highly, at times. I do not see so much disproportion as Dr. Marsh does in his comparison between the care of a pneumonia patient and an operation for appendicitis. The medical man is not so open to criticism or suits for malpractice as is the surgeon. He does not risk reputation in the same manner or to a like degree.

But, here is one case that is practical. The practitioner sees an acutely ill patient, makes a differential diagnosis, and decides that he is dealing with an inflamed appendix. He takes the patient to the hospital and meets the surgeon, who accepts his diagnosis and operates. The practitioner should charge, at the least, a consultation fee of \$25 for this service—but how often does he do it? He does often "assist" at the operation; but my own notion is that he is too apt to be a poor and unskilled assistant, and in that capacity is not, as a rule, worth his salt. He should keep out of such situations unless there is no House Staff around. A competent nurse is better in that rôle than an unskilled medico.

But, whatever we do or leave undone in the matter, the public will in the long run adjust the inequalities, particularly with regard to fees that are too high. It is for ourselves to adjust those that are too low, by bringing the public to a better appreciation of the value of our service.

High surgical fees are not reprehensible, because the public continues to pay them; and where they are manifestly unjust, they are apt not to be paid. If the public would have the sense to adjust the price before the purchase, little complaint would be heard.

The question of over-specialization, again, will be taken care of by the public when once the people find that specialists, so-called, are not all they purport to be. The specialist has had, or is having, his day; but the general practitioner—the family doctor—is certain to come back to his own. He may feel that he is a minority just now, but he always has been the real backbone of the profession; he still is; and, he always will be.

Our problem here, to my mind, is the *modus*

operandi by which specialists should be created. The American Ophthalmological and the American Laryngological, Rhinological and Otological Societies hand out their diplomas only to men who show fitness to hold them. Fellowship in the A.C.S. or A.C.P. should mean the filling of equally high qualifying requirements. When sentiment, both professional and lay, demands high standards of these and similar organizations and declines to recognize specialists who are not endorsed by them, our problem of specialization will be largely solved.

Legal enactment is not a wise method for correction of this situation. There must be solid sentiment, both lay and professional, in whatever line of correction is adopted, if it is to obtain lasting results. I believe, too, that with only few exceptions, *no man should be admitted to a specialty or to an organization of specialists unless one of his qualifications be that he has had at least 5 years of experience in general practice.*

I am, as you see, quite as sterile of constructive remedy as is Dr. Marsh, but while I think we should search for a remedy I have no faith that any speedy way out will be found. It will be a matter of evolution—little changes here and there—and don't forget that the public, in the long run, gets what it wants. If we develop or permit abuses, the public will sooner or later set about correcting them, and correct them in its own fashion.

But don't look for over-night remedies—that is one of the irrational features of this age. Things move—often imperceptibly, but ceaselessly just the same. "The mills of God grind slowly, but they grind exceedingly small."

A final thought: we develop brain storms every now and then over chiropractic and kindred nuisances. We grow quite excited over our presumed patent hold on the title "Doctor". Plato is often quoted, incompletely, as saying "know thyself". The full quotation is: "*Do thine own work, and know thy-self.*" Dr. Marsh has very wisely directed our attention to doing our own work, and to recognizing and correcting some of our own shortcomings. It is far more important to clean our own house than it is to grow excited over our neighbor's affairs.

"Do thine own work, and know thy-self."

PERSONAL ELEMENT IN MEDICAL ECONOMICS*

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The personality of a physician plays an important part in his success as a practitioner. Some men, profoundly wise in the art and science of medicine, possess qualities which do not permit them to apply their theoretic knowledge at the bedside. Others are so

* (Abstract of an address delivered before the Fifth Councilor District Meeting, Atlantic City, April 10, 1931.)

brusque, ungracious, or otherwise unattractive, as to repel rather than attract patients. The laity seems to believe that a genial physician is of the wise type. Be that as it may, there are some men in the profession who find the difficulties in practice almost unsurmountable, when proper introspection would demonstrate their own weak points and reveal to them how, if corrected, they might become more successful. Again, in this day and generation of superservice, people expect, not only careful and skilfull medical attention, but they demand results. The well-qualified physician with the well-equipped office is the man who is attracting patients; because he gives them the results they require.

Insufficient examination of the patient, failure to perform, in the examination, such essentials as even the laity are cognizant of—such as use of the sphygmomanometer, the stethoscope, and urinary analysis—are features which minimize the value of a physician's service, in the lay mind. Until every medical man gives to each patient the attention which is his by right, just so long will some patients feel a lack of confidence in the ability of some practitioner to competently diagnose his condition.

Recently, in Washington, D. C., I talked with a physician who has several assistants and a large suite of offices. He told me frankly that he had been obliged, on account of the business depression, to re-budget his office expenses; particularly because of poor collections. And then, to my surprise, he added: "I have just installed a new x-ray outfit, costing \$3000." "But why?" I asked. "You already had a serviceable outfit, had you not?" "Yes", he replied, "but the old one was out of date" (it had less than 10 years of service), "and I decided that my patients needed the latest and best."

That physician's success, when times were prosperous, is a reflection of his attitude, which is exactly the opposite of mass production in medicine. His attitude is, that the survival of medicine lies in *super-personal service—plus efficiency*. Permit me to emphasize, yes, capitalize, the *plus efficiency*. The practice of this young Washington doctor involves, as I

have already said, the use of a corps of assistants, and a very large amount of floor space. His office somewhat resembles a clinic. But it is not, in any sense, a clinic; it is the very modern development of a general practice. Both in his relations with his patients and in his instructions to assistants, nurses, and receptionists, he emphasizes that he is giving *personal* service—and not medical service on a mass-production basis.

He meets all patients personally—and, incidentally, his clientèle includes people of the highest type, socially, financially, and politically. After listening to the patient's troubles, and winning confidence through his personal interest in that individual, he refers the patient, if further diagnostic effort is necessary, to the various sections of his office corresponding to the usual diagnostic divisions of a clinic or large hospital, and his associates are selected for their ability in special lines of work. This unusual sort of general practitioner is actually surrounded by a group of specialists and diagnosticians who are his own employees.

I have entered into a rather lengthy description of one man's practice in order to show you what is meant by super-personal service *plus efficiency*. This particular physician is able to give his patients the *humane* interest associated with the old-time general practitioner, with all the accoutrements of a mass-production clinic, tending to efficiency. He properly regards every patient as a *human being*, and *not* as a mere *case*.

We hear it said that in some of the foreign clinics in which the human element seems to have entirely disappeared, altogether too many of the clinicians are anxiously awaiting the possibility of autopsy in order to confirm their diagnosis. Far too many medical men in every country seemingly, to the patients at least, overlook the fact that they are living, pulsating, human beings, and see in them only a medical or surgical dysfunction walking about on 2 legs and requiring treatment. Patients demand humaneness at the hands of their physicians, and the man who cannot extend that boon can hardly be surprised if he is not a bright and shining success in the prac-

tice of his profession. Our Washington friend has cultivated that field assiduously.

While it is not possible for the average general practitioner to establish himself in such elaborate offices as the young man in the nation's Capital City, nor to possess himself of a large group of assistants, it is his duty, nevertheless, to be so equipped, both mentally and with the proper instruments of precision, that he can render every possible service to his clientèle.

I am reminded of a physician in a northern county of this state who located in a comparatively small town, a dozen miles or so from the county seat, something over 20 years ago. His medical preparation was no better and no poorer than that of thousands of his confrères. He early recognized the necessity of giving to his patients a service equal to that which they would get if they were to consult a doctor in the county seat. He determined to do even better. Consequently, as time went on, he placed in his office the various instruments of precision which are so necessary to correctness in diagnosis. In other words, he kept abreast of the times in every way. As a result, that young man attracted patients. Those patients and their children form part of his clientèle today. His office is always crowded. An assistant and 2 nurses help in carrying on, and I have never known a more successful practitioner nor a man who was able to give definite service of a more decided character to his patients, than this particular doctor. He makes no claims to superior knowledge, but as a humane and competent practitioner he has applied to his practice the very best in the art, science, and economics of medicine.

The lesson is that we must give our patients more than they have ever received before—and we must give it to them in the form of efficiency, saving them time, expense, bewilderment, and nervous energy. The new type general practitioner must have a sense of economy; and he must consider medical economics, not only from the standpoint of his own interests, but most decidedly in the interest of his patients. That is where we are able to attack *state medicine*, inferior

forms of health insurance, and other socialistic tendencies, in their vital spots.

The physicians in the state of New Jersey are particularly fortunate in their opportunities for keeping advised as to state and other fads in medicine, which are arousing so much lay interest. We have in the *Journal of the Medical Society of New Jersey*, an outstanding example of professional journalism. It easily stands as a *leader* among the state medical journals of the United States. Its editorial conduct leaves little to be desired. Dr. Reik, the Editor, is a far-seeing man of great vision, who has given the economic factors of medicine an unusual amount of thought and study. His foreign investigations of socialistic medicine, as it is practiced in some of the European countries today, give us a very clear comprehension of what the medical profession in the United States would suffer were we to have, in any form, that type of practice; whether it be called socialistic or state medicine, panel practice, or otherwise. I gladly commend to the members of the Medical Society of New Jersey the careful perusal of all of Dr. Reik's writings on this subject. They are rather delightfully interspersed with his observations on foreign travel, and by that method they make a somewhat dull subject very fascinating to read.

Our great problem is to give the general public what it expects to receive in the form of smooth, efficient, and economic service, so that it may harmonize with our great modern industries and at the same time maintain the vital human personal element that graced the old-time practitioner's office. If we can accomplish this, we will have found the key to the survival of medicine. Of course, there are many ways in which this can be accomplished, and the ultimate development along this line *may be* the association of doctors into *groups* containing the major specialties, and one important *key-man*, who must combine the qualities of leadership with ability to impress patients with his *sincerity of interest in their troubles*. He will be the *first contact* (after the receptionist, of course) of the group with the public. He will be the *general practitioner, the coördinator, the personal rep-*

resentation of the humane factors in the group. To use a phrase common in the advertising profession, he will be the "contact man". This group need not necessarily house itself in one building or in one suite of offices. It will be perfectly possible for this man, the general practitioner, to say to his patient: "I find that I must refer you to Dr. Blank, whose practice is associated with mine." A body of associates, working either independently or under one name, can have their offices under one roof, or they may be separated; the grouping arrangement is preferable, because it means convenience for the patient and efficiency in combining results. You may ask how this differs from the present arrangement. It differs in that *the key-man*, the principal, of the group is *the general practitioner*. It also differs in one other important respect, and that is the method of rendering bills. When you send your car to a garage for repairs, it may be sent out to a radiator man to have the radiator repaired, and if the fenders have been bent it is taken to the other side of town to a metal worker who hammers out the dents. The battery may require the services of another type of specialist. But, you do not receive a bill from each of these men, nor do they subscribe to any such discordant arrangement as splitting fees with the garage that originally referred the job to them. You receive a bill from the garage to which you originally took your car, and the various items may be specified or may be lumped together. At any rate, everyone is perfectly satisfied with the arrangement.

But there are other, more immediate ways at hand by which we can increase the efficiency of our service to patients, without violating the personal *humane* relationship. At present, we would do well to consider the over-hauling of our fee tables, where such schedules are in use by a county society—and to establish a new minimum fee to harmonize with the present decreased level of prosperity. We should see that the patient is not referred for unnecessary laboratory and x-ray findings, and that all such reports as are absolutely necessary, are obtained at the minimum cost to which the patient's social status entitles him.

Incidentally, we should remember that the referring physician is often blamed for unexpectedly high bills for diagnostic work, and that *he is consequently often deprived of his rightful fee* for the treatment.

We should encourage hospitalization at home when practicable. We should make every endeavor to reduce the cost of medicines to our patients. Those physicians who prescribe would do well to have frank talks with their pharmacists in the knowledge that these associates of the profession, who are usually very reasonable men, will meet them half-way in the desire to furnish medicinal agents at moderate prices. Physicians who dispense can very easily take care of this important matter.

I ask you to consider that the satisfactory establishment of personal medical service on a business-like, economic and efficient basis, will be the automatic solution to many of our most troublesome problems, such as fee-splitting, conflicts between general practitioners and specialists, threatened state medicine, and the generally disorganized state of the medical profession.

The medical profession is being attacked from all sides. Indeed, in a recent issue of the *Atlantic Monthly* a physician commented that it seemed to be the "open season for doctors". One of the chief causes behind these attacks is not our failure to provide personal service, but to provide it on an efficient basis, satisfactory to the public. The public has come to compare the practice of medicine, "believe it or not", with the highly organized industries of today—such as the automobile, mail order retailing, and even the amusements and travel. We have failed to make our product sufficiently attractive. The public compares it with other modern values and thinks it over-priced.

I do not mean that we should go to great length, or deprive ourselves of our already meager reward, in order to cheapen medical service, but that we should give that efficiency which the patient believes he receives from a mass-production clinic, with a liberal mixture of personal sympathy, sincerity, and understanding. Then, we must educate the public to appreciate the value it receives. There is

plenty of room for the personal element in medicine, but it must be dealt out on a business-like basis.

FACTS IN A CHILD HEALTH PROGRAM OF COMMON INTEREST TO SCHOOL AND COMMUNITY HEALTH OFFICIALS*

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The outstanding and most authoritative "child health program" is the one outlined in the Children's Charter, formulated by the recent White House Conference on Child Health and Protection. As that "bill of rights" for every American child is read, with the common interests of school and health officials in mind, we pause momentarily before at least 9 of its 19 articles.

The Fifth Article of Children's Charter is: "For every child, health protection from birth through adolescence, including: periodic health examinations and, where needed, care by specialists and hospital treatment; regular dental examinations and care of the teeth; protective and preventive measures against communicable diseases; the insuring of pure food, pure milk, and pure water."

The first health protective measure here enumerated is periodic health examinations. In New Jersey we have a law which provides that "every board of education shall employ a competent physician, to be known as the Medical Inspector, and fix his salary and term of office. Every board of education shall adopt rules for the government of the Medical Inspector, which rules shall be submitted to the State Board of Education for approval". The law also sets forth the duties of school medical inspectors thusly: "The Medical Inspector shall examine every pupil to learn whether any physical defect exists, and keep a record, from year to year, of the growth and development of each pupil * * *"

It has been ruled that in the examination of school children, removal of clothing is not permissible. No examination, made under the conditions imposed by this ruling, can be imagined as constituting the health examination referred to in the Children's Charter, although physicians have been known, apparently, to consider a satisfactory health examination to be such an examination as is customarily given school pupils. At the last session of the Legislature, Dr. Newcomb sponsored a bill which provided for the removal of clothing for the Medical Inspector's examination, he, quite properly, contending that under present rulings no more than an *inspection* can be made. The bill failed to become law. It seems that the removal of clothing would teach a child that such procedure is necessary to a satisfactory physical examination, and even though the school examination might not be done expertly enough to please all, the examiner would thus find more defects than under prevailing conditions. A *real* health examination requires time, and in school work it is doubtful if a careful examination annually is essential; almost as much good could be accomplished if complete examinations were made every 3 or 4 years during the school life of the child, with our present type of inspections in the intervening years.

The "Summer Round-up" of children who expect to enter school the following fall, sponsored by the Parent-Teacher Associations, should be participated in most heartily and thoroughly by medical inspectors and the boards of education; because it is a step in the right direction, which the health officials should extend until the goal of close medical supervision throughout all the pre-school years is reached.

The second measure enumerated in Article Five has to do with the correction of defects. Finding and recording defects has no value without a follow-up to secure correction of defects which are remediable. That is where the school nurse seems indispensable, as she can convey to the parents an understanding of the need for correction, and the great harm which so often follows neglect. She can also advise where and how medical services of a special nature may be obtained.

* (Read at the 165th Annual Meeting of the Medical Society of New Jersey, Section of School Physicians, at Asbury Park, June 3, 1931.)

Regular dental examinations and care of the teeth is the third measure appearing in the same Article; an activity which is receiving more attention than formerly, but one in which there remains much yet to be done.

The fourth activity, protective and preventive measures against communicable diseases, brings the school and health officials most intimately together, because those communicable diseases which are given the most organized attention, to hold them under control, are also those diseases which foremostly affect the school-age group. Prevention and control of communicable diseases is undoubtedly the problem which gives both the school and health officials the greatest concern, and that which requires the closest working together.

When 2 groups attempt to work together so that their united efforts will be supplemental to either alone, there is always need for an understanding of their separate special fields, their common ground, and the measures and methods to be employed. The special field of school officials is control of the effects of the communicable diseases upon the school population and program. The special field of health officials is prevention and control of all diseases by measures applied outside the schools, as they are restricted from carrying their activities into the public schools to a greater extent than the making of recommendations.

Because most of the communicable diseases are spread by *contact*, and it is in the schools that the greatest gathering of susceptibles takes place, the success of efforts directed toward their control depends largely upon what is done in the schools. If the school officials fail to act when action is indicated, or fail to act in accord with the most advanced knowledge pertaining to the problem, the schools may be rightly blamed for the spread of contagion, and any well directed efforts of the health officials will be largely nullified thereby. On the other hand, inactivity of the health officials will not so completely undo well directed efforts to control the spread of disease in schools.

It can be readily appreciated that with each group doing good work in its special field the

results are cumulative. But, to be most effective, each group needs to meet the other on a common ground of understanding. Both groups need to exchange information, so that each may be guided by the fullest possible knowledge of the existing conditions.

For control of the communicable diseases, reporting of cases is essential. The most intensive activities must be centered around known sources of infection, which are the recognized cases; and every unreported case is a focus for spreading infection without organized control measures to combat it. School and health officials, both, should endeavor to secure complete official reporting, and to this end should exchange information of known or suspected cases. In any plan for control of communicable diseases, the value of case reports lies chiefly in the information they give concerning locations where an investigation may reveal the places and the manner in which infection is being spread.

Investigation of a reported case should disclose whether it originated from a previously known and adequately supervised case, or from some unsuspected source; and also, through inquiry regarding contacts, indicate what further spread from such case may be prevented by having the exposed pupils so isolated, when the incubation period is succeeded by the infectious stage, that they will not, in turn, pass the infection along. Such an investigation should show who ought to be excluded from school before they become infectious and spread the disease in the class room. In discovery and control of contacts, school and health officials should work closely together.

The investigation should also include an attempt to discover apparently healthy carriers of those diseases in which recognizable carriers are known to exist. This requires cultures and specimens from suspected carriers.

Investigators should be alert to learn of mild, unrecognized cases, as well as those recognized but not reported. In some diseases, physicians are not in attendance upon a large proportion of the patients, but the nature of the diseases is recognizable by parents. Reporting of such cases, by parents, is a matter

for the health officials to deal with in a thorough manner, and in which the school officials can assist greatly by passing on to the health officials pertinent information obtained from investigation of absences, and at times from other sources. The mild, unrecognized case is a challenge to both—the health and school officials—and to the school officials it is of particular interest because the unrecognized case so often causes disruption of the school program and attendance. Because the school population is under daily observation, the chances open to school officials for discovery of mild, unrecognized cases are many more than those to be had by the health officials. Here lies one of the school's greatest opportunities to assist in the control of disease, which if neglected, often defeats all other attempts to control an outbreak.

It is not unusual to have suspicions that a case of illness is of a communicable nature but no diagnosis has been established. If such a case is outside of the school, the health officials should see that a physician is called, or should employ a physician to establish the diagnosis as promptly as possible. If such a suspicious case is found in school, the school officials should promptly isolate the patient until he can be sent home. Whenever possible, the school physician should see the child at the school and establish the diagnosis then and there.

It should be borne in mind that most of the acute illnesses of children are caused by only 2 things—dietary indiscretion or infection. This holds so often that every acute illness in children should at once arouse suspicion of communicable infection, and be the cause for isolation at the first sign of illness, and that isolation should be continued until the true nature of the illness has been determined. A sick child should not be in school, either for its own good or the good of those with whom it comes in contact. Exclusion upon the slightest pretext is believed to cause less loss in attendance percentage than a hesitancy to exclude until certain that the child has a communicable disease, because delay so often results in spreading infection. Children who have been excluded should be kept out until it is determined that they have no com-

municable condition, and those who have a communicable disease should not be permitted to return to school until all requirements of the health department have been met. In some of the communicable diseases the infectious stage passes, and the health department requirements are met, while the patients have not yet recovered their previous state of health. For the physical good of such children, and for their rate of school progress, it is not good practice to urge too prompt return to school after release from official health department restrictions.

Isolation of reported cases of communicable disease is a duty of the health officials, and they should see that the isolation is as complete as practicable, and maintained without relaxation during that part of the convalescence when clinical recovery is apparent but the infectious stage has not passed.

Placarding of premises is a responsibility of the health officials, but as a combative and control measure, placards are of very slight value except in a few diseases. Too often, in the rural sections and small municipalities, the local health officials limit their attempts at disease control to placarding premises where reported cases exist. Placards are like red lanterns beside holes in paving. They indicate the location of hazards. While placards have a definite usefulness, it must be recognized that they do not play a great part in the control and eradication of disease.

When a case of communicable disease has cleared up, or has been found in a class room, the question of disinfection presents itself. In the home, if concurrent disinfection has been good, there is little need for disinfection when the patient is released. Cleaning—that is, washing, scrubbing and airing—is the best disinfection. Ordinary good housekeeping is good disinfection. In the school, the same method of disinfection is the best, but some people still clamor for school fumigation. In the control of communicable diseases, fumigation has no value except to destroy insects and animals known to carry infection. Formaldehyde fumigation has been discarded by all modern, progressive health departments, as being useless and an expensive delusion. For schools, it not only interferes with the

regular school program, but also keeps the cleaners out of the buildings when they might be doing a worth-while job of disinfection. Class rooms exposed to infection can be scrubbed and aired without interference with the regular school hours. Most pathogenic organisms quickly succumb outside of the body when exposed to drying and sunlight, so, while the cleaning of school buildings should not be neglected, the greatest attention should be given to the human sources from which infection may be contracted.

With the communicable disease patient excluded from school and isolated at home, and the class room cleaned, the next thing commanding attention is—what should be done about contacts which the investigation has shown? Only those contacts outside of the patient's family are considered here. If the disease is one with a short incubation period, exclusion of the contacts, with observation, is the proper procedure. If cultures can be used, as in diphtheria, they should be resorted to at once and the period of exclusion determined by the laboratory findings; otherwise the period of exclusion and observation is determined by the maximum incubation period reckoned from the last exposure.

If the disease is one with a long incubation period, 2 procedures offer themselves: (1) Exclusion and observation during the entire incubation period; or (2) when a definite time of first exposure can be fixed, the contact may be permitted to continue in school until a few days before expiration of the minimum incubation period, then excluded with observation until expiration of the maximum period after the last exposure.

In some diseases having minor consequences as to the disability and mortality they cause, and which are generally free from complications—such as chickenpox, German measles, and mumps—there is some indecision as to whether carefully supervised exclusion of contacts is worth-while. Ordinarily, it seems that careful intensive measures are worth-while to nip, at its beginning, any outbreak of these diseases, but if the infection becomes widely spread the intensive efforts at control will probably be unsuccessful and cause more annoyance than the with-holding of them.

The problem presented by carriers is a perplexing one. There is the problem of their discovery and that of their control. It seems that only under rare and exceptional circumstances should known carriers be permitted to attend school.

The control of communicable diseases by vaccination and immunization is the method of choice in smallpox and diphtheria. School officials can eliminate smallpox as a problem by exercising their power to exclude the unvaccinated. Immunization against diphtheria is today acceptable to so many that with co-operation of the health officials diphtheria need be no problem for the school officials; but they can assist in the propaganda to secure immunization at such an early age as to make the disease no cause for concern also to the health officials.

Immunization against scarlet fever is considered practical only when the disease has gotten beyond control in a comparatively small group. Experience has shown that adequate searching for mild and missed cases in the school is effective in controlling scarlet fever there.

The closing of schools to prevent the spread of disease is a gesture only, and indicates that the school officials have not provided adequate medical service. It has been repeatedly shown that open schools, with proper medical service, will give quicker control of an epidemic than will the closing of schools. Even closing school for fumigation is not good practice, as cleaning can be done between daily sessions and is better disinfection than fumigation. The best results follow little regard for the part of the school building in spreading disease, and a concentrated, determined effort to find pupils or teachers who are in the early stage of a communicable disease, or with a mild unrecognized attack, so that they may be prevented from infecting others.

So far, only a few of the separate communicable diseases have been mentioned by name, as the discussion has been held to the broad, general measures for their control. In working for the control of communicable diseases these general measures must be followed, but, as each disease has its own individuality, the importance and extent of em-

ployment of the separate general measures may, and should, vary greatly in various diseases. A single set of detailed rules cannot be drawn up and followed with success in all diseases. Each of the more frequently experienced diseases has its peculiar problems, and of these scarlet fever probably furnishes as frequently recurring problems as any. The particular problems in scarlet fever are the mildness of the ordinary attack, the short time the patient is disabled, the long infectious stage, absence of the rash on uncovered parts, and the short duration of signs which must be present to permit a positive diagnosis being made.

Where close attention is not given to discovering disease in school children it is surmised that as much as 50% of scarlet fever cases escape proper recognition and official restriction. With the rash confined to covered parts, and the mildness of the subjective symptoms, it is not unusual for a scarlet fever patient to miss no more than a day or two at school, and for the parents to be unsuspicious of anything of consequence. If a routine checking up of all absentees is not practiced, a mild, unrecognized case of scarlet fever can appear in the school at any time, and by the time secondary cases are found all chances for a correct diagnosis in the missed case are gone unless sufficient desquamation appears, and even that may be so atypical as to tax the courage of the school physician to make a diagnosis of scarlet fever. The thing of outstanding value to combat scarlet fever in schools is to have the school physician examine every pupil returning to school with a history of having had a sore throat or rash, even though the absence be only 1 day; which might be Friday or Monday.

If scarlet fever has appeared in a school the most important thing is a daily examination of pupils for evidence of desquamation on the hands, ears, or clavicular region, fever, reddened fauces, characteristic tongue, or rash below the collar line. Suspects should be excluded until all doubt is settled. Such daily examinations should be continued for at least 1 week after appearance of the last case. A few minutes of demonstration by the

school physician, showing the school nurse how the examination should be made, will enable her to select the suspects for the Medical Inspector's final decision. The teachers should be alert to detect the signs of scarlet fever and, as the disease is of sudden onset, they should not ignore the child who appears ill in the afternoon because it may have passed an inspection in the morning. Scarlet fever furnishes the outstanding example of how painstaking work in the school will give gratifying results.

Measles is one of the most contagious of diseases and for its control both the school and health officials must seek the coöperation of parents. By the time a case of measles is reported to the health officials much of the communicable stage has passed. When the infection is abroad in the community, school officials, including every teacher, should immediately exclude every child showing signs of illness, and the exclusion should be for 4 days to permit the true nature of the illness to show itself. It is in keeping home those children who show the slightest sign of illness, and those known to have been exposed to measles, that the coöperation of parents is so essential. The more parents can be impressed with the seriousness of the disease, and their outstanding part in the measures to prevent its spread, the better will measles be held within reasonable bounds.

Whooping-cough presents a number of special problems. There are its rather inconspicuous onset, and the hesitancy of physicians to diagnose and report whooping-cough if they do not happen to hear a whoop; which latter is seized upon by some parents to excuse escape from restrictive measures. In this regard, it may not be amiss to remind you that some whooping-cough patients never whoop, because they do not cough long enough to get sufficiently out of breath, but the child who stops in his play to cough spasmodically and then, after the coughing spell is over, resumes playing, unquestionably has whooping-cough. The mildness of some cases causes school officials to hesitate to exclude some whooping-cough sufferers, with rather disastrous results upon the school attendance records.

From the health officials' standpoint, whooping-cough offers a troublesome problem in that it is the only acute respiratory infection treated ambulant in the open air. The passing of backyard fences, with the child's innate curiosity and lack of fear for the unseen, makes control of whooping-cough a difficult problem in which the coöperation of parents is seriously needed.

In both whooping-cough and measles the campaign for their control must be carried to the parents for their coöperation, by educational measures in which both health and school officials should participate. Also in both of these diseases the patients may show quite marked debilitation which is overcome only after carefully supervised and prolonged convalescence. Haste in having these convalescents return to school is not advisable.

German measles and chickenpox are difficult to control because their sudden onset not infrequently causes others to be exposed before even the patient is aware of anything being wrong with himself. The long incubation periods make the restriction of contacts tiresome, and their rather insignificant nature makes it a question as to how much effort should be made to hold them under control. While it is believed to be not only justified but desirable to try to nip in the bud any impending outbreak by intensive measures upon their first appearance in a district, it is doubtful if much strictness is justified when large numbers will be affected by the combative measures except to try to prevent their spreading into new sections.

Mumps is ordinarily of little consequence below the age of adolescence, but after that age involvement of the sex glands may give rise to sterility. The incubation period of mumps is long, all contacts do not develop the disease, and a rigid control of contacts is irksome and interferes with schooling more than the disease. It is a question if mumps should not be disregarded in the grammar schools.

The last measure set forth in Article Five of the Children's Charter is the insuring of pure food, pure milk, and pure water. Our food supplies are generally wholesome and the health officials are active to see that they are kept so. Pure milk is not yet universal, as the

health officials are only too well aware, but distinct progress is being made. School officials can, and should, see that the milk used in schools is wholesome and safe from being a vehicle for carrying infection. The serving of milk in schools is quite extensive, but too frequently its source is determined by some friendship between the milk dealer and some member of the school board. In very few places in New Jersey is there justification for permitting any but pasteurized milk being used as a school milk supply.

With the required yearly analysis of the independent water supplies of schools, the school officials should be well informed as to the purity of the school water supplies. Where hand pumps are in use at schools it is not unusual to find conditions which make the water readily subject to pollution. These conditions can be easily discovered by inspection. It seems that every school which has electricity available should have a water supply under pressure, as such supplies can be more readily protected against pollution than the supply from a hand pump upon the top of the well.

In other articles of the Children's Charter we find mentioned: health instruction; safe, sanitary homes; safe, sanitary schools, which are properly equipped, lighted, and ventilated; safe, wholesome places for play and recreation; teaching and training for parenthood, and of parents for dealing wisely with the problems of parenthood; and education for safety. These are all things in which health officials have a vital interest, but in many of them the education officials have the greater responsibilities. They are aims which both the school and health officials should keep constantly in mind and strive separately and co-operatively to attain.

Article Seventeen of the Charter reads: "For every rural child as satisfactory schooling and health services as for a city child, and an extension to rural families of social, recreational, and cultural facilities." In this field, the schools have made notable progress by the rapid elimination of one-room schools, for which have been substituted large central schools with facilities, equipment and facul-

ties such as could not be supplied to a large number of small isolated schools.

These centralized rural schools have, however, complicated the control of communicable disease in that pupils from several, if not all, of the class rooms travel to and from school in a bus which not infrequently is very crowded and poorly ventilated. One result of this transportation of pupils is that an unrecognized or unsuspected case of communicable disease during the ride to school will spread the infection to pupils of several class rooms at one time. Through class room exposures, these in turn spread the infection to children from other or all sections of the district, until all class rooms and all school bus lines are affected. The central school with transported pupils requires constant painstaking attention to control the spread of communicable disease, and the medical inspectors of such schools should be appreciative of the extra problem they comprise.

In the rural sections, the school officials do not have as active or well prepared health officials to coöperate with in their efforts to control conditions; 6 of our 21 counties have a total of only 3 full-time health officials. It has been proposed to do away with the 139 local boards of health in these 6 counties and, in their stead, to set up 6 county boards of health. If this should be brought about by legislation it will provide for more effective health work and a trained personnel to work with the school officials in their efforts to control the communicable diseases as well as other health activities. This would be a step toward complying with the recommendation contained in the Nineteenth Article of the Children's Charter, which sets forth the need for full-time public health officials.

In closing, I would like to leave a thought with you as to what lies ahead in the field of school health work. School medical inspection is a specialty in medicine. It is a specialty open to physicians everywhere, but particularly in our rural sections. In New Jersey, there must be at least 500 physicians engaged in this specialty, the importance of which has been recognized by the establishment of this Section of School Physicians as

one of the 3 special sections in the State Society.

In my field of public health work one of the greatest problems is to get the administration of the public health activities into the hands of qualified and trained persons. It seems that the department of education officials are faced by a similar problem in school health work. For the school medical inspector to fill his proper place in a well developed school health program, it is practically essential that he have some special preparation for the job. School teachers are selected because of their special qualifications, whereas it has been too frequent that the school medical inspector has been chosen because he has been willing to accept the appointment at a smaller rate of compensation than the other physicians of that community; and the quality of the work performed often reflects this state of affairs. Each physician considering an appointment as school medical inspector should look upon the work as a medical specialty to which certain definite hours are to be devoted and not simply a chance to pick up some extra change at such odd times as can be stolen from his regular practice. The pay of medical inspectors should be such that it would be a stimulus to becoming proficient in the particular work; otherwise, the appointment should be refused.

Considering the number and proportion of the medical profession in this state identified with school health work, it seems that this society might do something to give the job and the school medical inspector the standing which they both deserve. The training desirable for school medical inspectors might be defined and the department of education ought to institute courses of instruction for physicians who wish to efficiently head school health programs. Hand in hand with such a step would go a better appreciation of the value of his services and such increases in compensation as to attract and hold the efficient.

Recent surveys show that in cities of 10,000 to 100,000 the average cost of school health programs is from \$2.50 to \$3 per pupil, and a few cities are spending as much as \$8. A White House Conference Committee, dealing

with board of education budgets for school health programs, includes in its recommendations the statement that it is expected in the near future it will be justifiable to expend at least 10% of the education budget for the school health program. This school health program should be centered around the work of a medical inspector who is enthusiastic about the possibilities open to workers in this field, of building for better, more efficient, happier manhood and womanhood.

HEALTH IN EDUCATION FROM THE POINT OF VIEW OF SCHOOL ADMINISTRATORS*

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If any justification be needed for this discussion, it can be easily found in the following paragraph taken from President Hoover's Address at the White House Conference on Child Health and Protection, November 19, 1930:

"These questions of child health and protection are a complicated problem requiring much learning and much action. And we need have great concern over this matter. Let no one believe that these are questions which should not stir a nation; that they are below the dignity of statesmen or governments. If we could have but one generation of properly born, trained, educated, and healthy children, a thousand other problems of government would vanish. We would assure ourselves of healthier minds in more vigorous bodies to direct the energies of our nation to yet greater heights of achievement. Moreover, one good community nurse will save a dozen future policemen."

No matter where one turns today to get a statement of the cardinal objectives of education, he finds that among these objectives is set down *good health*; and in most cases those who have been courageous enough or

wise enough to state the cardinal objectives of education, have chosen *good health* as the one most important of all. It is not strange that health should be considered of paramount importance, for what does it profit a man if he gains everything else and is broken down in health, or what shall one give in exchange for health? Those who are ill or who lack good health will be first to advocate health as of the greatest importance.

In a recent visit to the schools of Detroit, it was my privilege to see the provisions that had been made in Dearborn, in the Lowrey Elementary and Junior High School, for care of the children's health. There we saw: a splendidly equipped clinic; a fine dental room; special rooms for the instruction and care of the handicapped child; a special orthopedic unit for care of the disabled children, with transportation, treatment, lunches and instruction, provided free to all children in that particular department; a trained physiotherapist; violet ray and other light treatments; devices for corrective exercises; a therapeutic tank which enables the children to exercise with assistance of the buoyant force of water, and when treatments are over, the tank becomes for a time—"The Old Swimming Hole"—much to the delight of the children. Furthermore, we noted specially located mirrors which enable the child to see defects to be corrected and the progress being made; and a solarium which permits the children every advantage of health-giving sunshine, regardless of season or temperature. The solarium is enclosed by glass, which admits all the beneficial rays of the sun, and the children can in it rest, play, lunch, or work as occasion demands. We were told that hearing, sight-saving, and fresh air rooms are anticipated additions to come.

Of course, those of us who visited that school were much interested and much concerned about the cost of such a complete equipment, and, upon asking the Superintendent of Schools why a community should undergo such expense, his answer was: "So that every child who comes to us may be made as nearly perfect as possible—physically, mentally and morally." The growing recognition of the

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importance of all 3 of those things, and their dependence one upon the other, is sufficient reason for the changed attitude toward health and health supervision.

In no sense am I here today to make any boast of what we have done or what we hope to do in Englewood.

I do want to tell you, in a very simple way, of some small things that our city has done for our children, and perhaps draw some deductions from our observations. When a school administrator thinks of a health program, he thinks of the following things:

(1) That every child has the right, and should be given the opportunity, to begin his school life in the best possible physical condition, whether he is entering the kindergarten, the first grade or any other grade in the school system. To this end, it has become a rather general practice to establish "pre-school clinics" for detection and correction of remedial defects, before the child takes even the first step in his school life. Lacking such a clinic, any school system, no matter how large or how small, can make provision for the very early examinations of the children in the school system.

(2) That every child should be given a good physical examination. I was going to say a *thorough* or *complete examination*, but that is, perhaps, still distant and we shall have to content ourselves for the present with a good physical check-up. Of what shall this consist? In Englewood, this examination comprises a pretty thorough test for malnutrition, for defects of the eyes, ears, nose, throat, lungs, heart, posture, feet and teeth, and the results are written on the pupil's physical record card, on which other interesting and helpful data also finds place, such as the date of examination, place and date of birth, whether or not vaccinated, whether or not diphtheria immunized; and comprises, too, a record of any serious or contagious disease which the child might have had previous to this date, together with a record of any illness that he might have had during the year. This data is placed on the front of the card, while on the back is kept a record of the follow-up work, with resulting progress, improvement, or cure.

All of these facts are taken into consideration by the Medical Inspector, who gives the child a rating, from 1 to 10, which will indicate to him, the nurse, and school authorities, how close the child comes to being a normal physical being.

With regard to physical examinations, let me state that I have not infrequently observed, in years gone by, physical examinations that were nothing more nor less than a farce. I have seen boys and girls lined up for a physical examination and put through the mill; being examined for nose, throat, heart and lung defects, at the rate of 200 an hour. Of course, you men all appreciate how superficial such an examination is, and we all appreciate the fact that such an examination makes the worst kind of an impression on the boys and girls receiving it. Far from being a help, encouraging them to have definite periodic physical examinations for their own good, it has the tendency, I believe, to establish in the minds of these boys and girls the belief that a physical examination is a trivial affair. The day for that sort of thing has, however, gone by, and it is now pretty generally recognized, I believe, that examinations must be more thorough; that it is not sufficient, when making the examination, merely to satisfy the letter of the law, but that the Medical Inspector, or anyone making the physical examination, has a real job before him, and that job is to safeguard the welfare of the child submitted to examination.

As a result, in our most enlightened communities, parents are today consenting to have their children examined stripped to the waist. Our physicians and nurses are making examinations more thoroughly, taking 5 minutes or more per child to make the examination. This has had a very salutary effect, not only upon the boys and girls examined, but upon their parents and upon the teachers; parents are paying more attention to recommendations sent to them from the schools.

WHO SHALL MAKE THESE EXAMINATIONS?

In Englewood, the following statement covers our practice: The school nurse examines the eyes, using the Snellen chart to detect defective vision. She also examines for

defective hearing, using the audiometer, and realizing that this instrument can furnish only an indication of defective hearing and that any marked indication of defect requires notification of the child's parents and advice to have the matter attended to by a specialist.

The school physician examines the child for nose, throat, heart, lungs, posture and orthopedic defects. In every case, a record of defects found is made by the nurse and entered by her on the pupil's record card. A very important matter to be considered, with regard to the medical inspection of children and detection of defects, is determination of what is to be done with the findings. It is our policy, in Englewood, to notify the parents that physical defects have been found, and to accompany that notification with a recommendation that attention should be given to those defects. But, whenever defects are found that might have a marked effect on the pupil's school work, not only are the parents notified but the teachers are, also, in order that they may take such steps as may be required to help relieve a difficult situation. For example, a child with defective eyesight is given a carefully selected location in his classroom so that he can more easily read the blackboard or charts. The child with defective hearing is, likewise, located in such position as will enable him most easily to get the class room conversation. It has been very interesting to observe the improvement taking place in the work of those boys and girls who have been properly located after eye or ear defects have been discovered. If discovery be made of any heart, lung, or other organic defect that would make it seem wise to limit the child's physical education, the teacher is notified to guard that child's well-being.

Let us not get the impression, however, that it is sufficient simply to notify the parents that defects have been disclosed by the physical examination. Many parents fail to respond to a written notice, but will give hearty response to a personal visit by the school nurse, and will give the fullest cooperation in making the child fit for satisfactory school work.

You ask how frequently these examinations

should be made? We recognized the fact that a thorough examination of all of our 3500 pupils each year would involve considerably more time than we had the right to expect of our medical inspector, unless we employed him at a much higher salary than we are now paying.

So, as a beginning, it was determined that in Englewood each child should have a thorough examination once in every 3 years, and that those children in whom serious defects were found, should have a thorough examination every year.

We have this year, for the first time, been taking foot impressions. In 3 schools we have to date examined 822 children; of these 104 have been found to have some defects; 29 with defects sufficiently marked for the parents to be notified, and in 10 of these, steps have already been taken to procure correction of those defects. It is true that we are pioneering a bit in this respect, and one may very seriously question the use of so much time in taking foot impressions of all the children in our schools, when no definite orthopedic assistance is employed by the school to help remedy the defects. It is our belief that a sufficiently good reason is—that only in this way can boards of education and the people in general be made to appreciate the necessity for providing, at some time in the future, proper orthopedic service for children handicapped by defects of this kind.

Examination of the teeth. For a long time we had our school physician examine the children for defective teeth, but here too the examination was of such hurried character that we felt it could be greatly improved by having a school dentist appointed. Now, once a year, every child in the schools, up through the eighth grade, is examined by the dentist, and our dentists are employed 2 days a week, both morning and afternoon, and the result of this better examination has greatly improved mouth conditions.

Special examinations. May I also say that we require a special examination of all boys and girls who are taking part in competitive athletics as members of any of our athletic teams. This special examination, particularly

of the heart and lungs, is much more thorough than that given as a part of our regular examinations, and no child with a defect that is serious enough to warrant his being excluded from competition is allowed to represent Englewood on any of its teams, and such examinations are always held prior to the season in which the sports are to be played.

So much for the physical examinations of our children. The duties of the Medical Inspector, from the point of view of the school administrator, include many other tasks, and he should be interested in, and at the suggestion of the school administrator should check-up on, the sanitary conditions of schools under his supervision. While admitting that it is the important duty of the principal of the school to check-up on the sanitary conditions in his own building, nevertheless a suggestion, a word of friendly criticism, coming from the school physician, may sometimes have more weight than a suggestion made by the principal.

The school physician should be a leader in furthering disease prevention; by which I mean, initiating and urging the use of toxin-antitoxin for prevention of diphtheria, and similar measures. In this connection, it is interesting to note the results obtained in our city by the administration of toxin-antitoxin. Last autumn we were very much interested in the report on diphtheria prevalence for the state, county and our own city. The general belief, that diphtheria infection was very much less than it had been 15 years ago, was found to be erroneous. We found that, for the past 10 years, in the state of New Jersey, diphtheria had averaged 1.77 cases per 1000 population per annum and that deaths during the same period averaged 8.09% of cases reported. In Bergen County, diphtheria averaged for the same 10 years 1.62 per 1000 population annually, and the deaths 7.91% of cases reported.

In our own county, for the year 1916, there were reported 1.70 cases per 1000 population, with deaths 9.3%. For the year 1928, we found 1.62 cases per 1000 population and our deaths were 7.55%. If we estimated Englewood's expectancy upon Bergen County

figures, we should have an expectancy of 1.72 cases per 1000 population. Estimating our population as 15,000 during this period of time, we would be allowed 258 cases of diphtheria with an expectancy of 20 deaths, but during this period there were reported to the Board of Health, including all cases developed among out-of-town residents in the hospital, but 173 cases or 1.15 per 1000 population, with only 2 deaths or 8%, giving Englewood 33% less than the average for Bergen County.

During this period of 10 years there was a registration in the schools of Englewood approximating 6000, consisting of 3500 enrolled at any present time with 250 or more leaving school, by reason of graduation or other causes, yearly. During these same 10 years diphtheria toxin-antitoxin has been given to 3500 children, about 60% of enrollment between 4 and 18 years. At the present time about 90% of the children in school have been immunized. Among the 3500 immunized, only 3 known cases of diphtheria have developed, and not one of those children was seriously ill and none died; while among the 2500 non-immunes, 80 cases have developed, with 2 deaths.

Other duties of the school physician are many. It should be possible to call upon him for first-aid in case of accident on the school grounds or in the school building. He should serve as the intermediary officer between the local Board of Health and the school authorities. He should counsel the Board of Education and the administrative officers of the school and the teachers as to their proper procedures in matters of health. He should take the lead in trying to determine the cause of any epidemic that may develop in the community, and suggest any steps he might think would be valuable in eliminating the cause of or correcting the existing disease.

We, in Englewood, call upon our school physician for many other services, minor in character, but with a direct bearing upon the physical welfare of our boys and girls and of our teaching force.

Before closing, I wish to speak of one other matter that is receiving increasing at-

tention these days, and that is the question of *mental hygiene*. Child-Home-School-Relationship is receiving considerable thought and, as an illustration of the interest in this subject, let me tell you briefly an experience of our own. Two years ago we had given, by one of our Parent-Teacher Associations, a series of lectures by Dr. Ruth Andrus, on "Child-Parent Relationships". After those lectures, groups of parents were organized for the purpose of studying, in a more detailed way, this problem. During the past year, there was organized in Englewood a committee, comprising representatives of practically every organization in the city, which arranged for a series of 10 lectures to be given by the Child Study Association of America. The expense involved was quite heavy and the committee questioned whether or not a sufficient interest could be aroused to pay the cost of the lectures, so, private contributions were solicited, in advance, from a few representative citizens—asking them to underwrite the plan. Tickets were then put on sale at \$1 for the course of 10 lectures, and to the amazement of all concerned, approximately 1100 tickets were sold. The lectures were given in the High School Auditorium to audiences that averaged 600 per session.

A keen interest has been aroused in this study and another series of lectures is being planned for next year, individual study groups with trained leaders are being provided for, and the school system itself is making provision for a course to be given to its teachers on "The Application of Mental Hygiene to the Classroom". I speak of this, here, simply that we may realize how vitally concerned the general public is in health matters.

There are but 2 other matters that I wish to mention.

(1) What should be the qualifications of the medical inspector? First of all, he should have a good knowledge of medicine, especially with regard to the diseases of childhood. He ought to have special knowledge concerning

the mental and moral reactions of children induced by physical defects.

You may say that all this is an ordinary part of medicine, but I believe there is more required than medical schools ordinarily furnish to the average medical student. The school physician of long training acquires a technic in dealing with children that is not furnished by any medical school. The school physician should be a man of outstanding personality, for his personality must appeal to principals, teachers, pupils, and to the public itself. He should possess energy, for his job is a tedious, even though interesting, one. He should possess initiative, for with him rests the responsibility for suggesting many of the new ideas concerning health. Above all, there should be recognition of the fact that he is rendering a real service to the boys and girls of his community, and to the public in general, when he is putting across a real job of medical inspection and supervision.

(2) And this leads me to the last point—the pay of school physicians. I recognize the fact that boards of education have doubtless been receiving all that they have paid for. As a matter of fact, I am convinced that many communities are receiving much better service from their school physicians than is warranted by the meager compensation given. And I want at this time to compliment those men who have rendered such splendid service to the children of our communities for meager compensation. In some cases, however, boards of education and school authorities have not been solely to blame for these poor salaries. The school physicians, themselves, have been in a way responsible, for many of them have been willing to render only what was required of them, or they have only satisfied the letter of the law. I hope the day may soon come, and I know of no group that can bring it about more easily than the school physicians themselves, when school physicians will render such fine service that boards of education will be willing, even anxious, to pay what they are worth, up to \$10,000 per year.

THE CONDITIONED REFLEX OF THE CEREBRAL CORTEX*

(Pavlov's Epoch-Making Investigation of the Physiologic Processes Underlying Thought, Feeling and Conduct. Clinical Problems of Functional Nervous and Mental Disorders Which His Work Elucidates)

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In an address delivered at the Annual Meeting of the Medical Society of New Jersey, assembled at Atlantic City in June, 1928, reference was made by the writer to the researches of Dr. Pavlov on the conditioned reflex of the cerebral cortex. It was asserted on that occasion that there were just grounds for the hope that Pavlov had struck out across a new field of sublime possibility and had discovered the long-sought trail that leads to a real, scientific solution of the problems of mental and emotional phenomena. Since that conference was held, many important things have happened that emphasize the far-reaching consequences of Pavlov's work. Encouraged and assisted by the Royal Society of London, Dr. Anrep completed the translation into English of Pavlov's lectures on the conditioned reflex of the cerebral cortex and, in 1927, had them published. The lectures provoked immediate and wide-spread interest and discussion in both America and England. The description of Pavlov's experiments and findings, and the presentation of his interpretations and conclusions, created a profound impression in psychologic, neurologic and psychiatric circles. Many writers on behaviorism adopted the conditioned reflex as supplying a complete and convincing explanation for psychic problems involved in the study of simple and complex behavior of animals and of man. Professor Woodworth, of Columbia University, revised and rewrote his text-book on "Psychology", in which he generalized and coordinated Pavlov's conception of the condi-

tioned reflex with most of the complex activities of the human mind, and has added a most fascinating, convincing and helpful contribution to the subject, although he thinks the conditioned reflex does not furnish a satisfactory explanation for all mental phenomena.

Professor Woodworth demonstrates with apparently irrefutable logic, and by means of accumulated data of controlled experiments and tabulated tests, that the conditioned reflex is formed by new sensory impressions, is the basis of learned body motions and complex behavior, and is the essential physiologic concomitant of all acquired knowledge; and that the conditioned reflex differs from the unconditioned reflex in that the latter is present at birth, is not acquired or learned, and subserves the autonomic functions of the body and the instinctive activities of the organism. This illuminating work was issued from the press in 1930.

Since the publication of Pavlov's lectures, 3 years ago, a large number of investigators have been testing out his findings. The conditioned reflex has been demonstrated not only in the case of the salivary reflex in the dog but in man and other animals as well. by such investigators as Cason, Twitmeyer, Krasnogarski and others. Schlosberg was able to condition the knee-jerk to a bell, click, buzz and tactual pressure, in 44 out of 49 subjects; and Watson succeeded in creating and subsequently eliminating conditioned responses of panic and fear in children from 11 months to 3 years of age. At the International Congress of Psychology, at Yale College, in 1928, the conditioned reflex commanded extraordinary interest and was elaborately discussed; and, attempts were made to devise a plan for wide dissemination of the known facts regarding this important scientific discovery, and to encourage its adoption in fields of practical psychology, neurology and psychiatry.

Professor Ivan Petrovich Pavlov, M.D., was born in 1849; studied science; graduated as Doctor of Medicine at the University of St. Petersburg, 1883; was appointed Director of Physiology but went to Germany for 2 years of work under Ludwig and Heiderhaim.

* (Presented at the 165th Annual Meeting of the Medical Society of New Jersey, Asbury Park, June 4, 1931.)

In 1890, he was appointed Director of the Physiologic Department of Experimental Medicine at St. Petersburg, and 1897, Professor at the Academy of Medicine. In 1907, he was elected a Member of the Russian Academy of Sciences.

Pavlov is famous for his researches on problems of digestion, and on cerebral activities and the theory of reflexes. He was awarded the Nobel prize in 1904. In 1907, he was elected Foreign Member of the Royal Society of London, and in 1915, he was awarded the Copley Medal. Since the war, Pavlov has been Director of the Physiologic Laboratories in the Russian Academy of Medicine and the Institute of Experimental Medicine. In 1928, he was made an Honorary Member of the Royal College of Physicians in London. At the age of 80, he traveled 4000 miles to attend the International Congress of Psychology, at Yale College, where 1051 participants met, among whom were representatives from every civilized country in the world, the largest number of psychologists ever assembled. At this convention, Dr. Pavlov read a paper and was acclaimed the greatest psychologist and physiologist of the age.

Pavlov's experiments were conducted in specially constructed laboratories, unique and original in design, and involving the expenditure of millions of rubles. The money was secured mostly from private contributions of wealthy patrons of science, but the Russian Government has also aided. Pavlov has had under his direction a large number of trained physicians at all times, and an adequate complement of skilled laboratory technicians, and has conducted his experiments over a period of 30 years. Every new fact or apparent discovery had to be subjected to rigorous tests, reduced to a minimum of error, measured with mathematic precision and rendered susceptible of accurate repetition before it was permitted to be announced and published.

It seems paradoxical that such a genius and such epoch-making scientific work could come out of red Russia, that far-away land of deepening shadows and bloody moons where the age-old tragedy of man's inhumanity to man

is being reenacted on a colossal scale. Dr. Pavlov, however, is not a Communist and he openly denounces the whole Bolshevik régime—so it is reported in the public press—but he is a great genius and his work is so important that the authorities not only have allowed him to live on and continue his work, but have permitted him to wash his face, wear a clean shirt and sport a white collar.

An outline of the story of the successive stages in development of the present status of the physiologic reflexes is highly entertaining and very instructive. We all know how helpful they are in making diagnoses, and how indispensable to the autonomic functions of the body, but the revelation that the reflexes account for all human thought, feeling and conduct and are responsible for a considerable proportion of functional nervous and mental disorders, will strike many people as being a most astonishing and revolutionary conception. Such has been the fate, however, of most of the outstanding scientific discoveries of the past that have clashed with current standards of thought.

The conception that all animals, including man, are self-sufficient machines, seems to have originated in the brain of René Descartes, early in the seventeenth century, and was the result of logical inference and deductive analysis; not of vivisection and experiments on animals. The theory was accepted by Descartes' contemporaries, Swammerdam, Willis and Boerhaave; supported experimentally in the eighteenth century by Whitt, Unza, Prochaska and Le Mettrie, and taught by Marshal Hall, Müller, Wundt and many others in the nineteenth century. William James, America's superlative genius in the domain of psychology, graduated as a regular physician and afterward pursued the study of medicine in Germany. In the closing years of the last century, having adopted the physiologic methods of Wundt, James established the first laboratory in America for the experimental study of mental problems. Professor of Physiology at Harvard 4 years, and, subsequently, of Psychology many years, he formulated the fundamental principles of physiologic psychology which Pavlov's demonstrations emphasize,

extend, and establish upon definite scientific data.

The first quarter of the twentieth century witnessed a tremendous accumulation of new knowledge in all lines of human investigation and research. The field of minute, microscopic anatomy of the brain and nervous system was enriched by the work of men like Dr. Tilney, of New York; physiologic problems were critically examined and many of them solved by investigators of the type of Sherrington, of London; endocrinology forged to the front under the guidance of Dr. Timme and others; biochemistry by Erlich, Wassermann, Noguchi and Kolmer; mountains of data were heaped up by experimenters in many fields of practical psychology; and, physics and chemistry became veritable and uncanny wonders of the age. The time was ripe for the advent of a momentous scientific discovery. The army of thinkers and investigators was ready and watching for the arrival of a great leader who could present a formula for the generalization, coördination and unification of the known facts of the physiologic, biochemic and reflex processes under-lying thought, feeling and conduct. Then, rode calmly into camp the man on horseback—a white-haired, unpretentious octogenarian from Russia; but the world of science was quickly convinced that he was a giant from the north and had wrenched from nature the long sought key to the science of psychology, both normal and abnormal.*

*"But the vain groping after the required explanation, the disappointing snares of 'vibrations' and 'brain paths' and other obvious metaphors, faded into oblivion when the course of events put the conditioned reflex into the hands of the distracted seekers after truth. The reflex was accepted already as the indisputable unit, which by continued complication in chain reflexes and compound reflexes could be built up into habit; a habit maketh man, in the newer school of thought. The difficulty which remained was to get the kind of interrelation which was needed between the actual reflex mechanism and the new stimuli provided by a changing environment. Here, the conditioned reflex came in to supply the missing link. Accepting Pavlov's results, it was possible to touch the bedrock of experience. Deep down in the recesses of the physiologic mechanism (so it seemed) there were being formed relations between stimuli and responses from which could be built up an imposing structure that looked very much like the totality of experience. The soundness of the doctrine must be left to the future but the conditioned reflex represents the most significant way

in which central positions of associationism are active today." (Prof. G. S. Brett, University of Toronto. *Psychologies* of 1930, page 45.)

The mechanistic all-sufficiency of the human organism, with various concessions to traditional prejudices, has been assumed and taught by many famous physicians in the past 300 years. To the skilfully conducted experiments, tireless industry, exhaustive research, systematic documentation and the clever analytic deductions of these men, Pavlov is indebted for data that was essential to a rational conception and scientific interpretation of the meaning of his original and unique experiments. Pavlov has not solved all psychic and neurologic phenomena and he modestly confesses that he feels surrounded, nay, crushed by the mass of detail yet calling for elucidation. Despite his modest claims, however, there is a profound and rapidly growing conviction abroad among people best fitted to pass judgment on the subject, that Pavlov has elevated psychology to the dignity of a real science, and has laid the foundation for genuine progress in the solution, upon tangible, physiologic and biochemic grounds, of many of its complex and heretofore baffling problems.

The medical profession should feel proud of the part physicians have played in this difficult field of thought and effort. All the world must realize that the physician, because of his background of special knowledge and unique experience, should be better qualified than any other to cope with all such problems. The doctor is the first to note the reactions of the prospective mother to her new sensations; the first to hear the faint heart beats of the unborn child; the first to observe the reactions of the new-born infant to its environment—the cry of astonishment and kick of protest; the soothing satisfaction of nursing, and the contented oblivion of sleep. The doctor watches over the growing organism; notes the budding and expanding of its mind, and quickly discerns signs of arrested or perverted development; marks its normal adjustment to its environment and promptly detects signs of precocity. He senses the dark and ominous forebodings of idiocy, imbecility and feeble-mindedness, and points out traits of the in-

efficient moron. At puberty he beholds the coming of the sexual urge and sees, in the adolescent, manifestations of changes in thought, feeling and conduct incident to that period. The doctor's advice is sought by the young adult as to his or her physical and mental fitness for the successful discharge of marital life; and in after years as to conditions of health, strength and endurance. The doctor lays bare the first fateful harbingers of involution and decline, and notes their concomitant effects upon the victim; and he is present at the final struggle when death closes the scene. The doctor is companion and guide through the "seven ages" of man's pilgrimage, and makes the vicissitudes of the journey the burden of his thought, study and solicitude.

Thanks to the superior requirements of our standard medical colleges, the doctor possesses a broad and practical knowledge of the physical parts of the human machine, its gross anatomy, microscopic histology and pathologic morphology. He has the engineer's insight into its dynamic physiology and he knows something about biochemistry. He has deeply grounded information concerning the nature and activities of man's mortal enemy—pathogenic bacteria—and he understands the harmful effects of toxic agents, trauma and unhygienic environment. The doctor is acquainted with the microscopic appearance of the spermatozoa and the ovum. He knows what changes take place in the developing embryo at each successive stage of gestation. He can tell you just when the rudiments of the central nervous system appear and can predict the arrival date of the greatest miracle of all the world—the first fetal heart-beat. He knows what uterine conditions favor healthy, normal development of the unborn, and he is not uninformed as to the factors that arrest, distort or blight the budding organism. The doctor visualizes the anatomic and histologic growth, expansion and interlocking intricacies of the brain and nervous system during the period of maturation after birth; and notes that the differentiation of the cellular and neuron components of the brain are paralleled by progressive increase in the child's ability to learn,

understand and adapt its behavior to the exigencies of its environment.

In sum, the physician's stock knowledge and daily experience reach to the very core of psychologic problems and should enable him to appreciate, with an understanding that distances all others, Pavlov's epoch-making discovery.

A brief examination of the conditioned reflex in respect to its clinical importance in the consideration of nervous and mental disorders will now be attempted.

Educational activity, as met with in man and the lower animals, is associated primarily with mechanisms essential for the preservation of the animal and the species. The reactions of the organism to the factors of its environment embody the problems involved in the study of conduct and behavior. These reactions fall into 3 primary groups:

(1) Reactions that tend to arouse actions designed to gratify some appetite, desire or hope, associated with anticipated pleasurable experience—food, drink, warmth, sexual relief, wealth, knowledge, fame, power.

(2) Reactions that provoke a feeling of fear and tend to evoke defensive actions—flight, fight, or the cunning, passive methods of crouching, fainting away, helpless invalidism, paralysis of inhibition.

(3) Reactions that arrest and focus attention—investigating impulse—and result in efforts to find an *answer to the question: What is it?*

Pavlov established by experimentation that the behavior of a dog was merely a series of reflex acts induced by the factors in the environment activating the cerebral cortex through, or by means of, 1 or more of the 5 senses. He divided the brain reflexes into 2 kinds: (a) primary, direct, inborn or unconditioned reflexes; (b) newly created or conditioned reflexes. Food placed in a dog's mouth, coming into direct contact with the tongue and mucous membrane, evokes by reflex action the flow of saliva and acts of mastication and deglutition; a manifestation of the direct or unconditioned reflex. The cerebral cortex may be aroused in the dog and reflex activity induced by stimuli that reach the

brain through any of the 5 senses; the sound of a buzz, bell or metronome; the sight of a lighted lamp or of some object like a hat, broom, square or circular board; the prick of a sharp point, hot rod or electric spark; a sweet or bitter taste; an agreeable or repulsive odor.

These stimuli, when new or strange, first evoke direct cerebral reflexes and call forth the investigatory impulse. The dog seeks to ascertain the nature of the new sensations. He comes to a dead stop, pricks up his ears, sniffs the air, looks in the direction whence the stimuli seem to emanate and may do a bit of cautious reconnoitering. When he ascertains the nature of the stimuli he acts accordingly. If the perception thus aroused is associated in past experience with danger the dog either takes to his heels and runs away or bristles up, growls and prepares to fight. If the perception is associated with past pleasurable experience, such as the voice or sight of his master, the animal wags his tail, gives an affectionate whine or a yelp of joy and proceeds to try to make himself agreeable by such conduct and behavior as he thinks will elicit the reward of his master's approval.

Pavlov inserted a canula into the ducts of a dog's salivary gland, connected it with an apparatus which records automatically the number of drops that flow from the gland, isolated the animal from the experimenter and from every auditory, olfactory, visual or other stimulus not controlled by the investigator. The application of both the conditioned and the unconditioned stimulus is performed automatically from outside the animal's room. The animal is observed by means of a periscope. A few seconds after sounding a buzz within earshot of the dog, the animal was given food. This experiment was repeated daily. After the experiment had been repeated a number of times, Pavlov observed that upon sounding the buzz a few drops of saliva began to trickle through the canula into the receptacle. Subsequent experiments of the series were followed by an increased flow of saliva. As the experiments continued to be repeated motor responses began to appear, which increased in complexity in successive experiments; the dog

would lick his chops, wag his tail and look about for food. Clearly, a new response had been created in this animal by means of the buzz sound. Pavlov called the response which had been provoked a *conditioned reflex* of the cerebral cortex.*

He then continued to repeat the experiment as already described but omitted the giving of food after sounding the buzz. Thus, the reinforcing element that caused the expectation of food was removed. Soon the conditioned reflex began to disappear. The dog stopped looking about for food, then ceased to wag his tail, sniff or stick his tongue out when he heard the buzz; finally, the sound of the buzz failed to provoke a flow of saliva. The behavior of the dog was the result of an environment that had converted a natural food reflex or desire into a conditioned reflex or expectation of realization. When the stimuli that created the expectation were removed, the actions of the animal changed.

In a series of experiments on other dogs, Pavlov succeeded in creating new defense conditioned reflexes. Immediately after sounding a metronome within hearing of the dog experimented upon, an acid substance was put into his mouth, which he speedily ejected. After several repetitions of the experiment, the sound of the metronome began to be followed by a secretion of saliva which increased with subsequent repetitions of the experiment. This defense saliva, designed to wash out the acid, differed chemically from the saliva secreted when food was used in the experiment. Continued repetition of the experiment began to arouse motor responses. At the sound of the metronome the dog would lick his lips, shake his head, put his tail between his legs and even try to get away. At this phase of the series of experiments the rejectable acid was omitted. Soon the reactions to the sound of the metronome began, gradually, to weaken, until they completely disappeared. In this case a new defense reflex was created and the organism learned that the sound of the

*V. M. Bechterev, neuropsychiatrist of international reputation, changed the name of conditioned reflex to "associated reflex". Many American investigators call the response "conditioning"; all writers have reduced it to the formula S-R (Stimulus Response).

metronome was the signal to begin defensive preparations; but when the rejectable substances that reinforced the new reflex were omitted, internal inhibition quickly or gradually obliterated the acquired responses.

In another series of experiments an electric spark was applied to the animal's foot immediately after ringing a tiny bell. After the experiment had been repeated a number of times the tinkling of the bell began to provoke a motor reaction; at first, the foot that had been repeatedly sparked twitched, then moved a bit; and as the reactions grew stronger with repeated experiments, the activities of the animal increased and spread, until finally the sound of the bell caused the dog to howl, break away and hobble off on 3 legs holding up the foot that had been sparked in the previous experiments. When the spark was omitted in subsequent experiments the reactions decreased until the bell elicited no response whatsoever. In this case a conditioned reflex of fear and pain had been created by the environment, and had disappeared when the provoking agent had ceased to operate.

It is well known clinically, that nausea and vomiting follow the first doses of morphine in a person who has never had the drug. Pavlov observed that dogs respond to morphine in the same way and that after having had a few injections, the mere clipping of a patch of hair and bathing the spot with alcohol sufficed, in some dogs, to provoke a profuse secretion of saliva, retching and vomiting; and that in highly susceptible animals the mere presence of the experimenter was alone sufficient to produce evidence of nausea. Similarly, in another animal, 2 minutes after a subcutaneous injection of apomorphia had been given, a note of definite pitch was sounded during a considerable time. While the note was still sounding the drug began to take effect and the dog grew restless, moistened its lips, secreted saliva and showed a disposition to vomit. After the experimenter had reinforced the tone several times with apomorphia it was observed that the sound of the note alone sufficed to produce all the active symptoms of the drug, only in less degree. In such cases the exciting agent is a part of the "in-

ternal environment, namely, the alteration of the blood by the drug in question, and the excitation set up in the cortical cells was transmitted to the salivary gland and to the vomiting center", explains Dr. Pavlov.

It is well known that castor oil given in orange juice or whisky creates, in some people, an aversion to the adjuvant used. In a famous cure for alcoholic addiction advantage is taken of the reaction of the human organism to rejectable substances. The patient is given something either subcutaneously or by mouth that induces nausea; not enough to make him vomit but just enough to make him wish he could. Immediately before the drug begins to take effect, a pony of whisky is handed to the addict. At first, the liquor is seized and gulped down with marked satisfaction. But as the procedure is repeated day after day the patient begins to show a dislike for the liquor until finally he pushes it away in anger and disgust and demands that it be kept away from him altogether; and he marvels that he could ever develop such an astonishing distaste for so good a thing; and is convinced that he is permanently cured of the alcohol habit. A few weeks or months after being discharged *cured*, he falls in with some bibulous friends and finds to his amazement that he not only no longer has an aversion to the smell and taste of alcoholic drinks but that the old desire and craving for it have actually returned. Clearly, castor oil had created a conditioned reflex against orange juice or whisky in the one case; the substance used in the cure for alcoholic addiction, in the other.*

In his book—"Behaviorism"—J. B. Watson, formerly Professor of Psychology at Johns Hopkins University, describes the following experiments upon a child 11 months old who was very fond of a white rat and played with it daily. A steel bar held behind the child's head was struck with a metal hammer at the moment the animal was presented and the child put out its hand and touched it.

*The treatment of alcoholics by training defensive reflexes was first put into practice in a psychiatric hospital by Kantorovich. (A. L. Schniermann, Bechterev's Reflexological State Institute for Brain Researches, Leningrad. *Psychologies* of 1930, page 234.)

The sound was loud, rasping and startling. The child fell over on its face and whimpered. After the experiment had been repeated a few times it was found that the mere sight of the white rat caused the child to scream with terror. Moreover, it was afraid of other furry or hairy animals and could not abide the touch of the fur collar on the experimenter's overcoat, nor of cotton, wool or human hair. The fear of the white rat was removed by a tedious process of gradual elimination. While the child sat at a table taking its food the white rat was exhibited in a cage at the end of the hall, 40 feet away. Each day the cage was moved closer to the child and the point marked. In this way, all fear of the animal was ultimately expelled. The child reached out for the rat and played with it as before, laughing and cooing; and it was then observed that the child was no longer afraid of other animals, furs or hair. In obedience to the law of internal inhibition formulated by Pavlov, the conditioned reflex which had been built up in all these cases gradually disappeared after the reinforcing stimuli had been discontinued.

Pavlov succeeded in establishing the conditioned reflex in animals by means of all the special sensory organs—taste, hearing, vision, smell and touch. When the cortex of the temporal lobes had been removed by delicate surgical technic, he discovered that all conditioned reflexes of the auditory analyzer—as he termed hearing—had, at first, disappeared, and new ones could not be induced; but later on, some of the simpler auditory conditioned reflexes returned and new but less complex conditioned reflexes could be created.

Similarly, he found that upon removal of the cortex from the focal areas for vision, smell, or tactile sense, the corresponding sensory conditioned reflex vanished and new ones could not be induced. Later, however, the simpler ones returned and the less complicated could be established.

These experiments, and other facts uncovered by various surgical procedures and test experiments, prove that the cortex functions as a whole in response to stimuli, and that the focal areas are but centers of greatest in-

tensity that serve the more delicate and complex differentiations of the several sensory analyzers. Removal of the entire cortex of the brain destroyed permanently all conditioned reflexes and new ones could never again be created, although the decorticated animals survived the operation several months and 1 dog lived more than 3 years and was subjected to more than 1000 attempts to revive or create conditioned reaction; all with negative results.

Clinical medicine distinguishes nervous and psychic disturbances—neuroses and psychoses—but this distinction, Pavlov maintains, is arbitrary, that no real line of demarcation can be drawn between these 2 groups, and that it is impossible to imagine any deviation of higher activities from the normal without functional or structural disturbances of the cortex; and he has demonstrated that in dogs 2 conditions produce pathologic disturbances in the cortex by functional interference. These are (a) an unusually acute clashing of the excitatory and inhibitory processes; (b) the influence of strong and extraordinary stimuli; and in man precisely similar conditions contribute the usual causes of nervous and psychic disturbances.

Animals subjected to many conflicting stimuli simultaneously—some excitatory and some inhibitory—were rendered; first, incapable of precise reactions; later, efforts to create new conditioned reflexes failed completely; and, finally, the animals became restless, irritable, refused to eat, lost weight and manifested all the symptoms of nervous and mental aberration. Reaction of the organism to these various stimuli differs both qualitatively and quantitatively in different individuals and this Pavlov found to be true in the animals experimented upon.

Pavlov produced experimentally in dogs, symptoms that appeared to be identical with some of the minor neuroses and psychoses met with in human beings. All cases of neuropsychic disorders experimentally induced by him recovered spontaneously; some within a few days or weeks, others after several months or a year. In man, conditions of extreme excitement, such as intense grief, bit-

ter insult, acute disappointment, cataclysmic financial disaster, or tragic experience of any kind often lead to profound and prolonged loss of balance in nervous and psychic activities, especially when the natural reactions are inhibited by necessary restraint. Stimuli that cause unusual clashing of the excitatory and inhibitory processes, in dogs with the more resistant nervous system, lead to a predominance of excitation; in man, to conditions clinically known as neurasthenia, psychasthenia, dysthymia and the mnemoneuroses; in dogs with a less resistant nervous system, to a predominance of inhibition; in the human species, to symptoms observed in hysteria and various retrogressive disorders.

Clinical experience shows that nearly all cases of the disturbances in question, devoid of detectable physical basis, recover. Quite often, however, they are prone to relapses. Now, we know the reason why. Functional disturbance in the cortex affects psychic equilibrium and emotional tone in some people, just as disturbances in the subcortical autonomic centers by certain internal stimuli—such as fish, strawberries, quinine—affect the vasomotor equilibrium in certain other individuals and is manifested by the appearance of urticaria, angioneurotic edema, vertigo, etc. The former are victims of structural neuropathy; the latter, of so-called idiosyncrasy.

Can conditioned reflexes be created by words, suggestion, ideas bombarding the cerebral cortex and thus provoking extreme clashing of the processes of excitation and inhibition? Pavlov asserts that words exceed in richness, variety and strength all other stimuli in the production in man of the conditioned reflex. Words provoke storms of fury, move to tears of sympathy, incite tender feeling of affection, arouse lofty aspirations, fire the imagination and inspire to deeds of heroism, or strike down and paralyze every incentive. Indeed, words sound every note of the gamut of human feeling and understanding. Spoken words are magic wings on which poets and scientists soar to distant stars; and printed words have endowed man with the knowledge and wisdom of the ages. After all, words are but symbols of grouped conditioned

reflexes evoked by stimuli from sensory receptors. Learning, reading, conversation, observation, thinking are stimuli that constantly create new conditioned reflexes and serve the human organism in its continued adjustment to an ever expanding and changing environment.*

A man may have a desire to accomplish an important objective—an invention, the building of a home, the acquisition of a large sum of money. This desire may remain latent for years, in the form of a mere hope. Suddenly, conditions are created that convince him that the realization of the long cherished desire is possible, provided his own efforts harmonize with the exigencies of the situation. Thus, a former inert desire is transformed into lively expectation that dominates and controls the man's thoughts, feelings and conduct. Convinced by experience, accumulated knowledge and recent laboratory technic that he was on the verge of the greatest discovery or invention of all time, Edison, 50 years ago, worked on his electric lamp 5 days and nights without sleep. The same feeling of imminent triumph inspired Henry Ford when he wrought furiously for weeks on his model T engine; and Goodyear, who is said to have secretly pawned his children's school books to get a few pennies to enable him to carry on experiments in vulcanizing rubber. The thoughts, feelings and conduct of these men were dominated and controlled by conditioned reflexes created and sustained by factors in their respective environments. In each case, the reactions of the human organism conformed to

*"The first important appeal, in an attempt to understand learning, must therefore be to Pavlov's law, or to the principle of conditioning." (Prof. L. H. Troland, Harvard University. *Psychologies*, of 1930, p. 465.)

"It is convenient to divide motor learning into 2 classes, substitute learning (conditioned reflex) and system learning, the latter being a special type of the former." (Prof. Margaret Floy Washburn, Vassar College. *Idem* p. 17.)

"One can assert that the object of psychology is to describe behavior, and that it can be described only in terms of its constituent elements, viz, reflexes. It is thus the business of psychology to analyze the various complex forms of behavior into their simplest reflex elements, and to study the laws governing the combinations of these elemental reflexes into behavior patterns." (Prof. Harvey Carr, University of Chicago. *Idem*, p. 77.)

the pressure of necessity in a situation that rendered plausible the consummation of a paramount desire.

The stress of intense mental concentration in circumstances of great responsibility produces in the cerebral cortex such a storm of conflicting excitations and inhibitions that headache, insomnia, irritability and depression may ensue. These symptoms of cortical irritation and exhaustion disappear when the environment changes into a pleasant atmosphere devoid of strenuous, exacting and perplexing stimuli, or when the individual succeeds in adjusting his reactions to the inevitable circumstances. In his memoirs, General Grant recites his experience at Appomatox; how the perplexities of the situation and pressure of responsible decision had brought on an agonizing headache that had kept him awake all night, and that he was feeling intolerably depressed and wretched when a courier handed him a dispatch from General Lee who requested a conference for the purpose of discussing terms of surrender. "The moment I began to read the dispatch", Grant writes, "my headache and depression vanished like magic". Many of us have experienced similar reactions under less trying circumstances, and have observed them clinically in numberless patients.

An individual who happens to be endowed with a cerebral cortex of unstable equilibrium, either of the excitatory or inhibitory type, is highly responsive to the influence of words, suggestion, persuasion, command—verbal conditioning. In an environment which has evoked a high-tensioned emotional tone, crowded with conflicting desires, expectations and forebodings, such as may exist in the sick room, in the home of strained domestic relations, in a business beset with discord among its personnel or threatened with imminent disaster, a casual word or an unguarded gesture may activate a chain of reflexes, both conditioned and unconditioned, of far-reaching consequences. When the internal inhibitions of the organism predominate, the defensive reactions are of the cringing, helpless, invalid order and the individual eagerly seizes upon anything that is calculated to elicit the

sympathy and assistance of others. He reads disaster in the doctor's face and weaves his words into subjective symptoms. Stimuli of a difficult or hostile environment evoke a tone of depression so that the words, gestures and facial expression of others are transformed into obsessions, topalgies, phobias, parasthesias and paralyses by the process of psychic dissociation and localized cortical inhibitions. Charcot and Marie both declared 50 years ago that hysteria is connected with the highest cerebral regions and is less a disease than a particular reaction. These dissociations and inhibitions are conceivably converted into physical symptoms by disturbances of the synaptic relations of special groups of cortical neurons—spasm or relaxation of contact filaments that open and close intracortical nerve currents.

Thus, Pavlov has made the genesis and pathology of hysteria and allied psychoneuroses as clear as the noon-day sun; and these strange diseases that have baffled the skill, resources and understanding of physicians through all the annals of recorded history stand out stripped of most of their mystery and shorn of the disconcerting and conflicting deductions of metaphysical speculation.

It has long been observed that, in many cases of nervous and psychic disorders, the most skilful and pains-taking examinations fail to detect any departure from normal physical conditions. These patients are often told there is nothing the matter with them, to go home and forget about it. Pavlov has demonstrated the nature and location of the concomitant physical disturbance and has pointed out the remedy. Change or modify the environment that incites the clashing processes of excitation and inhibition in the cerebral cortex on the one hand; and help the patient to readjust his reactions and inhibitions, on the other. Moreover, as quite often happens, a psychoneurosis of either the major or minor type, is superimposed upon some chronic disease, such as high blood pressure, diabetes, heart leak, rheumatism, pelvic lesion or trauma, but is a separate and independent condition, runs its course and disappears, in spite of the fact that the chronic disease or

traumatic lesion persists unchanged. These transient neuropsychic disorders are clearly the result of stimuli incident to a perplexing or tragic environment, or verbal conditioning—suggestion—that produce intense clashing of the processes of excitation and inhibition in the cerebral cortex. Toxic agents and physical lesions, such as focal infection, disease processes, and trauma, cannot be the only causes of nervous and mental disorders. In spite of the fact that during the past decade, more teeth and tonsils, more nasal, abdominal and pelvic lesions, have received adequate surgical treatment than ever before, insanity and the minor neuropsychic disturbances are reported from all quarters to be increasing faster than the general population.

Affecting the endocrines, the subcortical autonomic ganglia and the sympathetic nervous system, the emotions provoke their own repercussions upon the somatovisceral constituents of the organism. Fear, anger or dread increases the secretion of adrenalin, hastens the heart beats and respiration, elevates the blood pressure, causes the liver to release stored-up sugar, inhibits activity of the salivary glands and stomach, erects the hair, dilates the pupils and provokes sweating, muscular tension and trembling—a rich soil for development of the psychoneuroses.

In his recent text-book on the "Functional Disorders of the Nervous System", the British neurologist, Donald E. Core, maintains that individuals obliged to live in an atmosphere of contention, where anger, fear or dread are more or less constant, develop at first the symptoms just stated. Should the unfavorable environment persist for long periods of time, defective metabolism, gaseous indigestion, acidosis, intestinal stasis, autotoxemia, arterial sclerosis and cardiorenal disease are prone to develop, in the order named.*

*Drs. Harvey Cushing and Geo. W. Crile have recently announced that many years of study and experience have forced them to the conclusion that the drives and stresses of the cortex of the anterior lobes of the brain (Tilney's organ of strategy) may and do cause serious disturbances of the functions of the endocrines and the viscera which in turn produce neurocirculatory asthenia, ulcer of the stomach, etc. As the stock market goes down, functional and organic disorders of the human organism (conditions not caused by infection or trauma) go up. (The Author.)

In view of Pavlov's discoveries and the advanced position taken by such eminent medical teachers as Dr. Core, a new forward step for the profession seems imperative and inevitable. The future physician must be taught the fundamentals of psychology and psychiatry, as well as of internal medicine and surgery, in order that he may more accurately evaluate the etiologic potency of psychic experience as factors in the development of nervous and mental disorders and the chronic physical diseases that may follow as sequels; to be able to render real assistance in this new field of preventive medicine; and to instruct parents in methods of rational control and natural guidance of their offspring.

In this high-tensioned, high speed, machine age, the relation of trauma to the higher functional activities is the subject of daily controversy, disagreement and misunderstanding. In noncompensation cases the nervous and psychic disturbances incident to shock, commotion and physical trauma when the head is not injured, disappear within a few hours or days. Where the head is injured the severity and duration of the neuropsychic symptoms are determined by the extent and location of definite traumatic lesions of the brain—contusions, lacerations, pressure from depressed bone or blood clot. In these cases, the nervous and mental symptoms disappear along with healing of the wounds unless pressure upon the brain remains unrelieved or irritating cicatricial adhesions develop. In noncompensation cases, the patient is anxious to get well as soon as possible and is helped by the stimuli of an encouraging environment.

In accident cases, where the question of compensation or damage is involved, conditioned reflexes are sometimes created by the patient's environment that not only retard recovery but instigate additional symptoms; or, may lay the foundation for successful malingering. The injured person begins to think and feel in conformity to the new situation that has given rise to a lively expectation of substantial compensation. His family is clamorous and greedy for damages; his physician makes helpful statements and his lawyer is optimistic. Several doctors may be called upon to examine the patient; some of them may talk too

much in the presence of the patient and thus supply him with pertinent and inciting information. Such stimuli acting upon a centripetally predisposed organism, in an atmosphere of expectation, may develop psychic dissociations and cortical inhibitions, manifested by such symptoms as topalgias, parasthesias, and paralyses.

In traumatic cases symptoms caused by focal infection, toxemia and chronic diseases may complicate the picture. Clearly, therefore, symptoms caused by organic lesions and disease processes must be differentiated from symptoms created by the post-traumatic environment. In these cases, as in all other functional psychoneuroses provoked by centrifugal stimuli, recovery follows removal of the influences that are responsible for the birth, growth and sustenance of the conditioned reflex in the particular case. Conditioned reflex symptoms of post-traumatic origin developed by an environment of expectation and suggestion, always disappear after litigation is ended and the claimant is convinced that there is no possible way to reopen the case.

When a functional nervous or mental disorder, traumatic or otherwise, is the result of an attempt of the organism to react to the environment through negative inhibition, in fulfillment of a real or fancied need, or dominant desire, either acquisitive or defensive, the patient will make no sincere effort to recover so long as he remains in an atmosphere of expectation where the environment is replete with suggestions that keep alive the belief that his syndrome is a potential asset rather than a liability.

In closing, let me caution against hasty and injudicious interpretations of Pavlov's teaching. While his experiments appear to reduce the dumb animal to a reflex automaton, they do not necessarily postulate that man is an irresponsible robot. In the human species the processes of selection, rejection and adjustment of the organism to an ever expanding and changing environment appear to be at least partly under the control of a supreme product of evolution, a something that makes possible the conception of subjective individ-

uality and the ever present intuition of volitional choice. This something, like the structure of the physical atom, has not as yet been satisfactorily defined or reduced to an understandable formula.

The human animal is endowed with the capacity for developing speech. Language symbolizes ideas, meanings, grouped or integrated conditioned reflexes, charged with static potentiality, set, hair-triggered and located in the cerebral cortex, and, in some way, responds to the slightest stimulus or effort of attention. This effort of attention, according to James, is the essential phenomenon of will. Among civilized, enlightened people, spoken and printed words store up an infinite variety of integrated, kinetic, conditioned reflexes so that man, unlike the dumb animal, has a vast reservoir of knowledge that he may use as stimuli in the selection of one from many available alternatives when the environment presents a situation that calls for action or decision.

Man is the only animal that can profit by the precept or experience of another animal that has been dead a thousand years; the only animal that can communicate his advice and warning to a fellow creature at the distant ends of the earth, at the bottom of the sea or miles above the clouds, or transmit to generations of the remote future his thoughts and feelings, his voice and his very personal appearance. In man, spontaneous variation and adaptation of physical structure to meet the necessities of the environment have long since ceased, so that he, by means of the conditioned reflex of the cerebral cortex, now changes his environment and fashions it to fit his needs. The ten billions of neurons in his cerebral cortex enable man to roam the forest, burrow into the bowels of the earth, live at the bottom of the sea, or wing his flight through the azure blue without becoming a beast, rodent, fish or bird.

By means of the cortical structure of his brain, and of that central control of which we know so little, man has made himself the architect of his own fortune—*lord of the earth and master of its resources.*

CUTANEOUS EPITHELIOMA; DIFFERENTIAL DIAGNOSIS AND TREATMENT*

With Lantern-Slide Demonstration

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The cure of cancer of the skin depends upon its early recognition followed by adequate therapy. But, there are still a great

many cases which may be confused with epitheliomas. There are more than 20 different skin conditions which are prone to cancerous growth. We recognize, clinically, both primary and secondary skin cancer, the latter invading the skin by extension from neighboring or under-lying organs, or by metastases from distant organs. The purpose of this paper is, however, to discuss only primary carcinoma of the skin.

An epithelioma, which is the most common form of carcinoma of the skin, is a primary



Fig. 1. Melanocarcinoma of the left fore-arm

many cases of cutaneous cancer which have been allowed to exist until destruction of tissue and development of metastases have reached a stage where cure is difficult or impossible.

In a brief survey of the clinical diagnosis and treatment of epitheliomas of the skin, only the principal features can be enumerated, with a discussion of the more common dis-

ease, epithelial neoplasm arising from any of the various layers of the skin, from the cutaneous glandular structures, or from embryonic misplacements (cell rests). It is characterized by slow, destructive, and invasive growth, and it usually occurs on exposed surfaces of the body, especially the face. It most frequently develops from long-present keratoses, warts or nevoid growths which have been subject to chronic irritation, or it occurs on sites which have been subject to trauma and exposure, such as the nose, forehead, cheeks,

* (Read at the 165th Annual Meeting of the Medical Society of New Jersey, at Asbury Park, June 4, 1931.)

hands and legs. Epitheliomas are usually classified according to the type of cell from which the tumor is formed: (1) Basal cell epithelioma, or rodent ulcer; (2) prickle cell or squamous cell epithelioma; (3) nevocarcinoma, or melanoma; (4) Paget's disease, or the so-called dyskeratosis of Darier. However, there are some cases of the mixed type; the so-called basal-squamous cell epitheliomas. By another classification, epitheliomas may be grouped into: the flat, or superficial; the deep,

tation, improper, or inadequate treatment, a malignant squamous cell proliferation may at times occur.

Squamous or prickle cell epithelioma is usually secondary to trauma, such as that induced by light, chemicals or mechanical irritation. It frequently follows numerous inflammatory pathologic processes of the skin, such as syphilis, lupus vulgaris, lupus erythematosus and burns. It is the type of cancer usually engrafted on long standing senile, ar-



Fig. 2. Same patient as Fig. 1. Melanocarcinoma of the fore-arm after removal by high-frequency knife followed by electrocoagulation

or nodular; and the papillomatous, or fungoid variety. The superficial type may be keratotic, verrucous or nodular; the deep seated type, nodular or ulcerative.

Basal cell epithelioma originates most frequently from embryonal rests or by abnormal growth stimuli acting on a normal group of cells; in the latter, the growth may be induced by excessive exposure to the actinic rays or other forms of trauma. Again, in a basal cell cancer, because of mechanical irri-

senical, and tar keratosis; also on the mucous membranes following leukoplakia. Although it may appear at any site, it is prone to attack the mucous membranes and the extremities.

Melanoma, or melanocarcinoma, occurs in pigmented moles which are blue, bluish black or slate colored. It is a most malignant type of neoplasm, metastasizing quickly and ending fatally.

Paget's disease of the nipple is a carcinoma

of the intra-epidermal portions of the mammary duct, which eventually breaks through the epidermis and becomes an infiltrating carcinoma of the breast. There is also a form of extra-mammary Paget's disease.

The various types of epithelioma have certain features in common. They all show a tendency to slow, central ulceration with a characteristic infiltrated margin. The ulceration is covered with a loose, dirty crust which is easily removed and is again replaced by the drying of a serosanguineous secretion. The ulcerated center becomes depressed while the margin shows a very solid, elevated, rolled

squamous cell origin. Warty epitheliomas arising from keratoses, and those caused by x-ray, radium or other burns, are of the squamous cell type. Paget's disease of the nipple appears usually in middle life and must be differentiated from an ordinary eczema, which it simulates. Clinically, it begins as a dermatitis-like eruption of the nipple or on the areola. The process extends slowly, the scales are replaced by crusts, and the entire involved surface becomes infiltrated with a sharply-defined border. The disease may remain in this stage for a long time, even years, before distinct, clinical carcinoma of the breast



Fig. 3. Basal cell epithelioma at the external canthus of the right eye

border, waxy or pearly in appearance and usually traversed by dilated capillaries. Usually, the entire area is non-inflammatory in character. From these early forms extensive destructive lesions develop, usually toward the point of least resistance; about the eyelid or canthus, for instance, or toward the orbit. On the cheeks or body, or on firm resistant tissue, the tumor cells may extend very superficially without disintegration, and form a plaque on the skin with a slowly advancing, rolled, waxy border simulating morphea. This type is usually of basal cell epithelioma, while the deeply invasive and papillomatous forms are of

develops. The diagnosis of epithelioma is facilitated by a knowledge of the age of the patient, usually the single character of the lesion, the history of progression, and the character of the border. Finally, in case of doubt, a biopsy should be done.

DIFFERENTIAL DIAGNOSIS

Syphilis. Nodulo-ulcerative syphilids may be confused with an epithelioma when occurring in a typical site and lacking some of the usual syphilitic characteristics. Nodulo-ulcerative syphilids are usually serpiginous or crescentic in outline; are more rapid in their

growth; many discrete nodules are present; and the ulceration is more pronounced. Also, luetic lesions have a tendency to spontaneous healing with the formation of pigmented scars. A gumma may be mistaken for an ulcerating epithelioma when the former shows unusual induration and limited ulceration. The gumma, as a rule, tends to necrotic involution; the induration in a gummous lesion is more diffuse, more vascular, and the typical elevated, indurated border of an epithelioma is lacking. A chancre is usually rapid in growth; the induration or infiltration is beneath the epidermis rather than in it; and the ulceration in

the follicles; and is seldom ulcerative to the extent one finds in an epithelioma. There are usually many areas involved in lupus erythematosus; particularly the scalp, the ears and the face.

Granuloma pyogenicum is a fairly common tumor of the skin which frequently follows an abrasion or laceration. It is bright red in color, pedunculated, and bleeds easily; it is composed of granulation tissue, and pyogenic organisms can usually be demonstrated.

TREATMENT

Cancer of the skin is curable in practically all cases if treated skilfully and thoroughly

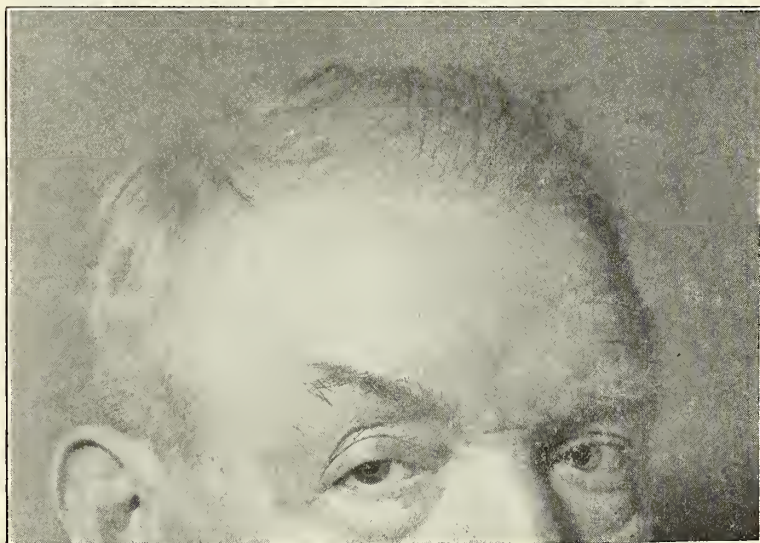


Fig. 4. Same patient as Fig. 3. Basal cell epithelioma removed surgically, followed by treatment with Roentgen rays to the site of the tumor

a chancre is not pronounced. The neighboring lymph-glands are involved early and are acutely enlarged. The history is important and a dark-field examination and a Wassermann test should be made.

Tuberculosis. Lupus vulgaris usually begins early in life; it is relatively uncommon; and the characteristic apple jelly nodules can be seen around the border, especially when a glass slide is pressed against the skin. Ulcerative tuberculosis has a soft, undermined margin, a quite purulent secretion, and vegetative granulations are present.

Lupus erythematosus has a characteristic adherent thin scale which extends down into

before it has infiltrated the deeper tissues and involved glands, mucous membranes, cartilage, bone or muscle. The aim of any treatment for skin cancer is complete eradication of all the cancer cells. One of the first essentials is accurate determination of the type of epithelioma, its location and the extent of involvement. In a great many cases the type can be determined by clinical appearance and by location, but in some cases a small section must be removed to determine the degree of malignancy and the approximate radiosensitivity or radioresistance. As a rule, this can be done without danger of extension or metastases.

The methods used for eradication are varied, and in a great many cases several of the methods can be advantageously combined in order to obtain the best results. The method chosen will depend on the type involved, its location, and the extent it has invaded neighboring structures. No routine procedure or method should be practiced but the physician should be able to use any or all the methods in vogue and, consequently, choose the method or methods which will give the best results.

Treatment of basal cell epitheliomas, which comprise 90% of the cancers of the skin, can

after all reaction has subsided, which is usually 6 to 8 weeks. At the end of this time it may be repeated or if the lesion shows improvement a dose of lesser intensity may be given; but 2 such treatments are usually sufficient. The tumor may be destroyed primarily by electrocoagulation, including $\frac{1}{8}$ to $\frac{1}{4}$ inch of normal skin surrounding the tumor, followed by Roentgen ray exposure to the site. Obviously, this preliminary treatment by electrothermic methods will decrease the amount of radiation necessary. Roentgen rays or radium may be used in epitheliomas in-



Fig. 5. Same patient as Fig. 3. Basal cell epithelioma of the left cheek

be successfully conducted to cure in 80% to 90% of cases if treated before the growth has invaded glands, cartilage or bone. Excellent results can be obtained with Roentgen rays. Radium will give similar results, and can be advantageously substituted in cases involving the eyelids, the alae of the nose, and other places which are comparatively inaccessible to the Roentgen rays.

In the majority of cases of basal cell epithelioma, unfiltered Roentgen rays are sufficient to cure. The lesion should be closely shielded and $2\frac{1}{2}$ to 3 skin units given. This exposure should not be repeated until 2 weeks

volving the eyelids but which have not extended into the conjunctiva. The eyeball must be protected with a brass eye-shield inserted beneath the lids, if the eye is in line with the rays. Super-soft Roentgen rays (Grenz rays 2 A. U.) may be substituted in selected cases with success. Electrodesiccation is effective in lesions involving the eyelids, but the resulting scar is apt to cause a retraction of the lid with a consequent ectropion. If the treatment with radium or Roentgen rays has failed to effect a cure, one must resort to electrodesiccation, followed by plastic surgery if necessary. Lesions which in-

volve cartilage, such as that of the nose or ears, are best destroyed by electrocoagulation or excision by the high-frequency knife. This treatment should be followed by 2 skin units of unfiltered Roentgen rays to the site of the lesion, or the equivalent dosage of radium element or radon. The period of healing is shortened by this method and there is less chance of radium or Roentgen ray reaction in the cartilage. Equally good results may be obtained by the surface application of plaques or packs of radium element or radon.

Treatment of prickle cell epitheliomas. Inasmuch as the prickle cell is a functioning cell,

consist of erythema doses given at intervals of 2 months for 3 treatments. If there is involvement of adjacent glands, radical dissection of the glands followed by radiotherapy is indicated. Although prickle cell epitheliomas of the trunk and extremities can be cured by radiation alone, it is the consensus of opinion that the percentage of cures is increased by first removing the lesion surgically or destroying it by electrocoagulation; this is especially indicated if the lesion involves cartilage, as such areas are resistant to radiotherapy. Radium or radon should be applied after destruction of the lesion. In some cases

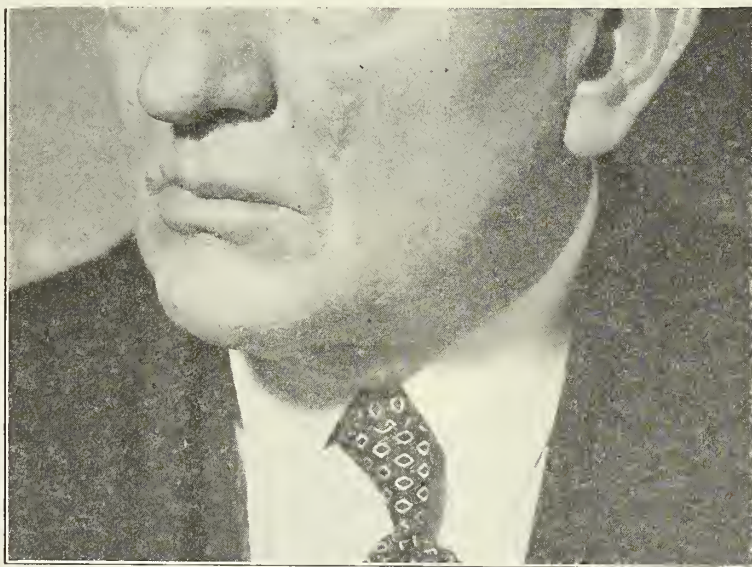


Fig. 6. Basal cell epithelioma after treatment with electrocoagulation followed by treatment with Roentgen rays to the site of the tumor

more highly differentiated, more active, it is usually more resistant to radiotherapy. The prickle cell epithelioma grows more rapidly than a basal cell epithelioma, and as it metastasizes to neighboring glands, it therefore presents a more difficult problem as to therapy. It occurs on any site, but is particularly prone to attack the mucous membranes and the extremities. Treatment will depend on size of the lesion, its location and extent. In any case, treatment must aim at early and rapid destruction of all cancer cells. Prophylactic exposures to Roentgen rays should be given, in all cases, to the neighboring glands; and the rays, filtered through 3 mm. aluminum, should

radon seeds may advantageously be implanted into the tumor, and gold seeds may be used and left permanently in the tissue.

Treatment of basal-squamous cell epithelioma. There are some cases clinically diagnosed as basal cell epithelioma, which prove to be resistant to radium and Roentgen ray therapy. Montgomery is of the opinion that 15 to 20% of basal cell epitheliomas will probably prove to be transitional in character, microscopically, and he recommends a wide excision of the tumor in preference to radiotherapy.

Treatment of melanomas. Because of a high degree of malignancy, melanocarcinomas



Fig. 7. Prickle cell epithelioma of the nose



Fig. 8. Prickle cell epithelioma of the nose after excision by the high-frequency knife

must always be treated radically, if any success at all is to be obtained. Wide excision, either by the scalpel or, preferably, the high-frequency knife, is the method of choice, and excision should be not only wide but should include under-lying fat. Histologic sections have shown that the surface appearance of the lesion is not a true index of its extent, for tumor cells may be found several inches away and extending down into the fat. Therefore, the excision should take the form of a cone, the base of which is deep in the under-lying fat.

Treatment of Paget's disease of the nipple.

tion or increased rate of growth. In order to obtain the best results, one should never be so biased in opinion as to follow solely that procedure in which he is best trained and equipped, but should select the method or combination of methods most likely to accomplish the result, with the greatest certainty, in the least time, and with a minimum danger to the patient's life and important structures.

DISCUSSION

Dr. H. J. F. Wallhauser (Newark): Dr. James has brought for discussion a most important subject and has called attention to the varying character of the cellular structure of carcinoma as it



Fig. 9. Same patient as Figs. 7 and 8. Final result

It is the consensus of opinion that amputation of the breast should be done in all cases. It is primarily a carcinoma which finally invades the deeper portions of the breast and mastectomy, followed by irradiation, will give the best results.

CONCLUSION

Any chronic slow-growing keratosis, nodule or warty lesion, especially occurring on an exposed surface of the body, or in locations subject to trauma, should be regarded with a suspicion of malignancy, particularly if there is a tendency to ulceration, infiltra-

affects the skin. Two main distinctions stand out prominently in differentiation regarding mainly the course and progress of the basal cell type as compared to other distinctive types of cellular structure. Clinically, differentiation can usually be made; the basal cell type remaining quite superficial, while the squamous and prickle cell types rapidly involve the subcutaneous tissue. The basal cell type beginning either as a pea-sized, elevated, shiny lesion with a waxy, rounded border; or, developing from a patch of senile keratosis, runs a course of many years. In this type, even if it has progressed to a considerable extent, an attempt should be made to arrest further progress. This is well exemplified in a case seen in our City Hospital about 15 years ago. On admission, the patient presented an ulceration over the temporal, and extending downward over the malar and maxillary regions, involving the bone, which was denuded and exposed. Under ether anesthesia, the

entire area was curetted and the exposed bone cut away, leaving an opening into the antrum. This was followed by intensive x-ray treatment at intervals of 2 weeks, for 3 months, at which time no further extension was noticeable and the surface was filling in with healthy granulation tissue. About 3 months later, extension occurred into the orbit, the eye gradually becoming dimmed, the conjunctiva and cornea became macerated, and the vitreous was discharged. Enucleation of the eye and curettage of the orbit was followed with x-ray treatment of this area, after which the patient made a good recovery and up to the present time, 15 years later, no further extension has occurred; patient being able to continue working as a porter in the hospital.

In cases of the squamous and prickle cell types, the indications are entirely different: here we have to contend with the possibility of early metastasis and much will depend on how early they come under observation. In judging the prognosis, several factors are to be considered: a lesion may have progressed deeply into the corium and still be amenable to treatment, but if the neighboring lymphatic glands are palpable, except in very rare instances, the condition must be considered hopeless, although it may be controlled for a time; i. e., in advanced age, with the attendant atrophic changes in the lymphatic system, occasionally a case of this type may be retarded over a period 5 or more years; but in young, robust individuals, the chances are greatly lessened. Early complete destruction, therefore, offers our only hope in this class of cases.

A biopsy, to differentiate the type of cell, is being advised by many recent writers and from a prognostic standpoint, this would seem a good procedure; but when we take into consideration the clinical aspects, in which we have a new growth, gradually increasing, with a characteristic, waxy, rolled border, the diagnosis is evident and verification regarding the degree or kind of malignancy, especially in early cases, is not necessary.

In applying treatment, the cell character of the lesion is not so important as its location, and more especially the depth or down-growth into the corium. Methods have changed from time to time, beginning with the stronger caustics—arsenic, chromic acid, acid nitrate of mercury—but while they are still in use to a moderate extent, and good results are possible, they are being generally discarded on account of the extreme pain they produce.

A plan which has been successfully employed over a period of years, and which can be applied to any type of carcinoma, is offered as follows: Under local anesthesia, the growth is first removed by cautery or curet, and then a concentrated solution of trichloroacetic acid is applied with a hard wood toothpick, the point being wrapped firmly with absorbent cotton. The surface of the lesion is wiped, with firm pressure, boring into all soft areas indicating malignant tissue (healthy tissue being more resistant). In very superficial conditions, including cases of senile keratosis, even firm pressure-boring will not reveal any depressions, but if the applicator drops into a pocket in the base of the lesion, this should be thoroughly cauterized, firmly twisting out all loose tissue. In some cases, we may find a pocket running out under healthy epithelium, beyond the lesion for $\frac{1}{4}$ inch or more and this should be opened with a pointed scissors or cautery and the area thor-

oughly wiped with the acid. The first step is to get to the bottom of the growth, and in cases that are superficial the curet will be efficient; in cases that have progressed deeply, the entire growth should be enucleated with the actual cautery or cutting knife, and this applies particularly to cases involving locations such as the inner canthus of the eye, junction of the nose with the cheeks, lips, or mucous membranes, especially the upper surface of the hands. When the trichloroacetic application is completed, the surface should be dried, bleeding points having been controlled, and a 25% solution of argyrol painted over the area, and a gauze dressing applied and maintained by adhesive plaster.

During the past 10 years, the application of radium has been added for all cases in which invasion of the corium or subcutaneous tissue has occurred, waiting until the inflammatory reaction following cauterization has subsided. In the first year or so, recurrences were frequently observed, but with advancing improvement regarding dosage, necessity for a second treatment is now extremely rare.

In all cases, careful inspection about every 3 months is advisable until the scar has become smooth and white and no hard masses can be felt; when the patient may be discharged.

Failure will happen occasionally with any plan and a solution of the cause is difficult or impossible. A patient will remain apparently cured for a year or more, and then recurrence shows. Fortunately, these cases are rare. Nevertheless, when they do occur, they will try our patience; but even in this type, by persistently following up and thoroughly treating recurrences, we will finally succeed. Some are no doubt due to insufficient or incomplete early treatment, but this is a problem yet to be solved, as predisposition to indifferent cellular growth in certain individuals still awaits solution.

Regarding the malignancy of the various nevi, only one type was brought out by Dr. James—the melanotic type—which demands particular stress regarding removal. All other varieties can be cauterized or excised without danger, but in the smooth, convex surfaced, dark, ripe grape colored lesions, great care must be exercised to get a complete removal. In these cases, thread-like ramifications will be found extending down through the subcutaneous tissue: these processes must be followed down to their termination and unless this is done they might be better left alone. When located in areas of constant irritation, inflammatory reaction may result, and proliferation must be considered. Here, we have no choice; wide excision should be done, with the cautery or cautery knife.

With this bloodless method of cutting, the pigmented, thread-like processes can be seen and followed to complete removal. Interference, however, in this type is dangerous and should receive careful consideration before an attempt at removal is made.

The treatment of cancer, from a dermatologic standpoint, has certainly progressed to a degree where we can feel certain of success, providing the case comes under observation before metastasis has occurred.

Dr. N. B. Heller (Newark): In 1827, Dr. Jacob described this condition, under the name of "rodent ulcer", as a slowly spreading, relatively non-

malignant, and resistant-to-treatment lesion; and as such it was known for nearly a century. It was only in the beginning of the present century that Krompecher studied it microscopically, under the name of "basalzellkrese" or basal cell epithelioma, which he had shown as originating from the epithelial cells of the epidermis, the hair follicles and rudimentary hairs, and the sebaceous or sweat glands, as well as from epithelial rests which later unite with the epidermis as they extend toward the surface. But this does not tell us why some remain as basal cell tumors while others, during their life cycle, assume more and more the histologic appearance of squamous epithelial cells, undergo keratinization, develop keratin pearls, and take on malignant properties. Joseph Kyrle developed the theory that since the 2 main embryologic functions of the basal layer cells are: (1) To become keratinized and form pavement *epithelium*; (2) to form sebaceous gland cells; it will depend on the ultimate destiny of a given cell, whether we get a relatively nonmalignant basal cell growth, or a more malignant squamous cell type, with keratinization and pearl formation. In between these 2 classes comes the so-called "basosquamous" cell epitheliomas, where we find the cells relatively larger, staining lighter, and possibly with pearls of colloidal material but not of keratin; and, they are hard to differentiate from types 3 and 4 of Broder's classification of squamous cell epitheliomas. This type of epithelioma is found in 5% of cases examined microscopically, and is really a stage in the metamorphosis of the basal type of lesion into a squamous type; we have no means of differentiating them clinically, and time and again we get a surprise on microscopic examination.

As to treatment, a biopsy is, to my mind, imperative. Since the basal cell growth is relatively nonmalignant, most any form of destruction, from the use of arsenic paste, which is mentioned in the writings of that prince of physicians, Hippocrates, to the modern employment of radium emanations, will prove satisfactory.

For years, at our clinics in the Newark Beth Israel Hospital and in the Newark City Dispensary, we have been using the electric current, either by the actual cautery or for electrocoagulation, followed by the curet and trichloroacetic acid, with good results.

It is the basosquamous and the more malignant squamous types, that require more radical measures. With those, I am in favor of complete destruction by means of the electric current followed by a liberal exposure to the gamma rays of radium, and deep raying of the regional lymphatics. Especially do I recommend this therapy for epitheliomas of the mucous membrane, which have a rich blood and lymph supply and grow rapidly and metastasize early.

I fully agree with Dr. Wallhauser's statement that all these patients should be followed up, because we do frequently see recurrences. I would also like to plead with you not to temporize with suspected cases of Paget's disease, because a biopsy followed by a mastectomy is the only treatment for this type of intra-epidermal skin carcinoma.

XERODERMA PIGMENTOSUM; PRESENTATION OF 2 CASES*

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The reason for presenting this short paper is the comparative rarity of this disease and the opportunity for actually showing to this section 2 patients suffering from this rare condition.

Xeroderma pigmentosum is a rare, congenital, malignant disease characterized successively by freckle-like areas of pigmentation, followed by telangiectasis, atrophic patches and finally verrucous and epitheliomatous tumors. This disease was first described by Kaposi, in 1870. It usually begins early in childhood, with freckle-like macules on the face, neck, ears, hands, fore-arms, and upper-chest. This is followed by whitish, scar-like atrophic spots which may be small and wrinkled. Telangiectatic spots also appear, and they may be punctate, linear, or stellate, and are sometimes elevated in the form of small angiomas. As the condition advances, eczema, fissures, ulcers, and ectropions are prone to develop. There is little or no disturbance of general health, in the early stage. Finally, new growths of the papilloma type appear, some of which develop into epitheliomas and sarcomas, which, however, rarely metastasize. These neoplasms occur mainly on the face. Progress is slow, but the condition finally develops into cachexia, malnutrition, and, sooner or later, comes to a fatal termination. The disease is generally considered to be a congenital skin defect, in which there exists a peculiar sensibility of the skin to light. Frequently, several children are affected in one family. The pathologic type of the malignancy is mainly a non-metastasizing, superficial epithelioma, usually of the basal cell type. Diagnosis is simple, because of the progressively uniform development of the lesions. Prognosis

* (Read at the 165th Annual Meeting of the Medical Society of New Jersey, Pediatric Section, Asbury Park, June 4, 1931.)

sis is poor in all cases. The duration varies from a few months to 20 or 30 years. Treatment consists of the symptomatic care of local lesions, and ointments or lotions to protect the skin from the action of light. X-rays and surgical treatment of the epitheliomas delay, to some extent, progress of the disease.

The 2 patients to be presented today are both girls of pure Italian ancestry. In the family, there were originally 6 children, all girls. One child, Mary D., died of this same disease, showing symptoms at the age of 2 and dying, after 5 years, at the age of 7. One, Josephine D., now aged 7, showed signs of the freckled pigmentation at the age of 1½ years, 5½ years ago; and, another sister, Irene D., now aged 5, showed symptoms 3 years ago at the age of 2. These children have been under treatment and observation at various places, with very little success in delaying the process. The visiting public health nurse of their community has delayed the disease progression considerably by keeping them, as much as possible, in darkened quarters, wearing a dark mask, and coating them with substances impervious to the actinic rays of the sun, when they were out. Their general health has remained, as yet, unaffected, although in one of them the lesions are somewhat advanced.

To this history I have to add at present only the following report from Dr. A. Benson Cannon, of New York:

"We have investigated these children from the standpoint of hypersensitiveness to alpine, carbon-arc, sun-light, x-rays and radium, and could find nothing to indicate that they are any more sensitive to these agents than any normal child. Their blood chemistry, urine, blood Wassermann, calcium tests, have all been found normal. I have just taken a blood test for arsenic, and one from the urine for lead, but a report of these has not been given to me yet. During the last 4 years I have taken about 25 carcinomatous growths from the larger child and about half a dozen from the smaller. I usually remove such growths with the bipolar current of the endothermic knife and follow that with massive doses of x-rays or radium."

SUSTAINED HYPERCREATINEMIA WITH DELAYED FATAL TERMINATION

Case Report

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and

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While the exact mechanism involved in creatinin metabolism is not yet understood, the extreme solubility of this substance and the resultant ease with which it is removed from the blood by the kidneys renders determination of the blood creatinin a procedure of great value and considerable prognostic significance in the study of nephritis.

Hypercreatinemia may, with 2 exceptions, be accepted as of ominous import, the observations of many indicating that a blood creatinin of more than 5 mgm. % is the rather immediate forerunner of a fatal termination. The exceptions to this clinical rule are: anuria, in which, if the cause can be found and removed, creatinin retention is not of prognostic import; and, acute nephritis in which temporary high values may be encountered. With these 2 exceptions hypercreatinemia always signifies an extreme degree of functional renal inefficiency, the kidney, apparently being unable to recover from the damage thus indicated.

The usual interpretation regards creatinin values of 2.5 to 3 mgm. % as suspicious; 3-5 mgm. % as of unfavorable import; and over 5 mgm. % as indicative of an early fatal termination. While occasional recoveries in the presence of hypercreatinemia have been reported, these are so exceptional as not to invalidate the general rule.

That hypercreatinemia may not always indicate an *early* termination, is shown by the case previously reported by one of us (Kilduffe, R.A., Jour. Med. Soc. New Jersey, 26:365:1928), in which a child aged 7 years,

the blood creatinin ranged from 11 to 18 mgm. % for 2 months prior to death. The purpose of this case report is to record a similar finding in an adult.

Case report. H. W., aged 32, a white, male laborer, was admitted to the Medical Wards of the Atlantic City Hospital on the service of Dr. Samuel L. Salasin, June 18, 1931, complaining of weakness, vomiting, headache, and bleeding from the gums. His illness began, apparently, in October 1930, when the patient noticed that he was not voiding as much urine as formerly and began to "feel weak". His condition became progressively worse and he continued to feel weaker and weaker until he finally came to the hospital because of the repeated headaches and attacks of vomiting.

On examination, except for the fact that he is obviously anemic and very weak, nothing of importance could be found. There was nothing in the examination of the nose, throat, or mouth to explain the bleeding from the gums; and the chest, abdomen and extremities were essentially negative. He was urinating at frequent intervals, passing large quantities at each voiding. The laboratory reports shown below were the outstanding features of the case.

Urinalysis on admission showed a specific gravity of 1.004 with 65 mgm. % of albumin, many leukocytes, but no casts or red blood cells. On subsequent examinations, the albumin content ranged from 65 to 25 mgm. % with occasional hyalin casts and sp. gr. 1.003 to 1.007. Wassermann and precipitation tests were both negative.

The blood count on admission was as follows:

R.B.C., 955,000; W.B.C., 6650; hemoglobin, 11% (Dare) 1.51 gm. %; color index, 0.6 plus; polys., 80%; small lymphs., 18%; transitionals, 2%. Slight polychromasia; moderate anisocytosis; slight poikilocytosis; marked vacuolation; 2 stippled red cells seen.

Blood chemical studies are tabulated below:

Date	Sugar mgm. %	Urea mgm. %	Creatinin mgm. %
June 19	100	133	10
" 20 A.M.	not done	114	18
" 20 P.M.	not done	120	12.4
" 30	not done	114	14.5
July 4	not done	100	10
" 7	not done	188	20
" 11	110	85	16.8
" 14	110	95	16
" 18	not done	83	18.2

For the first few days after admission the patient continued to complain of weakness and dyspnea and the clinical condition was unchanged. Two weeks after admission, with the usual methods of treatment, he felt much improved and from then on, despite a blood creatinin between 10 and 20 mgm. %, he felt entirely well, objected to staying in bed, and to hot packs and so on, and persistently expressed a desire to go home. Finally, on July 21, he insisted upon signing a release and left the hospital; his blood urea being 83 mgm. and his blood creatinin 18.2 mgm. % on July 18.

Approximately 2 months later, on September 10, 1931, he was again admitted because of severe headache and nausea. He said that for a while after leaving the hospital he had been fairly comfortable but headache, nausea, and vomiting soon reappeared and became progressively worse.

The blood count at this time showed: R.B.C., 1,790,000; W.B.C., 5500; hemoglobin 5 gm. % (Haden) 32.4%; color index 0.9 plus; polys., 59%; small lymph., 35%; large lymph., 1%; eosinophiles, 2%; transitionals, 3%.

The urine had a specific gravity of 1.009, contained 120 mgm. % of albumin, and showed 30 leukocytes per field. Blood urea was 190 mgm. % and the blood creatinin 13 mgm. %. Bleeding and clotting times were normal.

Shortly after admission the patient vomited a large amount of blood, and this was repeated during the next 6 days. During this time he also became gradually more toxic and stuporous and died on September 16, 1931, 6 days after admission.

The case is of interest from the fact that, apparently, the patient had a blood creatinin of from 10-20 mgm. % for a period of 3 months prior to death and despite that fact, never, until the end, felt sick enough to convince himself that he was seriously and gravely ill.

BLOOD TRANSFUSION IN SEPTIC DISEASES OF CHILDREN*

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Such a large proportion of the children I have transfused have been subjects of septic infections that I determined to devote my entire discussion here to the value of blood transfusion in such diseases. I am enthusiastic regarding the help this form of treatment offers to this type of patient, and my opinions are based on the results noted in more than 1500 transfusions in which I have had some part, and particularly on the effect of 342 transfusions given to the 178 infants and children seriously ill with the septic infections classified here:

Measles, plus septic conditions such as mastoiditis, suppurative adenitis, bronchopneumonia and associated anemia—13 cases, 20 transfusions.

Scarlet fever, either extremely toxic, or associated with tissue sepsis such as mastoiditis, suppurative adenitis, etc.—21 cases, 45 transfusions.

Diphtheria, either extremely toxic, with adenitis of the "bull-neck" type and high fever, or cases in which persistent bleeding and oozing from the local lesion occurred—27 cases, 37 transfusions.

Erysipelas, the migrating form of infancy (not including cases complicating mastoideotomy)—27 cases, 42 transfusions.

Suppurative meningitis, with organisms (streptococcus, pneumococcus, Friedlander's bacillus and influenza bacillus, in the spinal

fluid and in the blood in 11 cases)—12 cases, 34 transfusions.

Acute mastoiditis, with anemia, and septic in type, but with negative blood cultures—20 cases, 27 transfusions.

Sepsis of new-born (with focus in the umbilicus or respiratory tract)—5 cases, 7 transfusions.

Bronchopneumonia, with or without anemia or other tissue sepsis—14 cases, 30 transfusions.

Lobar pneumonia—5 cases, 7 transfusions.

Suppurative thrombophlebitis of lateral or jugular sinus—18 cases, 59 transfusions.

Miscellaneous infections (pyonephritis, endocarditis, osteomyelitis)—10 cases, 29 transfusions.

Many of the above patients received several other forms of treatment. No doubt many of them would have recovered if they had not been transfused, but it is a fact that at the time of the transfusions all of those children were seriously ill and many of them desperately so. In some of this series there occurred a sudden and spectacular recovery in a patient who appeared hopelessly sick, where the transfusion was the unquestionable turning point for good, but while this profoundly impressed all concerned, such dramatic responses must not be expected as a usual result. Then, one must not condemn this form of treatment because it fails to cure such malignant diseases as bacterial endocarditis, or to revive hopelessly moribund patients. Judgment of the value of this, as of any other treatment, must be based on the results of experimental research and clinical experience in a large number of unselected cases.

The methods by which blood transfusions act to combat sepsis are, in general, 3: (1) by delivering to the patient some form of passive immunity which the donor's blood possesses; (2) by overcoming an associated anemia; (3) by affording general support through the food value of the transfused blood. Recovery from a severe sepsis seldom depends upon a single factor, and it is probable that the good results secured are obtained from the combined factors, although in a given case, some one factor may be predominant.

* (Read at the 165th Annual Meeting of the Medical Society of New Jersey, Pediatric Section, at Asbury Park, June 4, 1931.)

Experimentally, there is much evidence supporting the view that whole-blood contains important immunizing agents. Kolmer, in his text-book on "Infection, Immunity and Biologic Therapy", records the research results of many workers (Lister, Flügge and Nuttall, Buchner, Pfeiffer, Bordet, Ehrlich, Metchnikoff, Cohen and Cohen, Matsunami and Kolmer), proving the presence of antibacterial and antitoxic substances in animal and human blood. Kolmer has, himself, shown that these immunizing substances are present in larger amounts in whole, coagulable blood than in defibrinated or citrated blood. Wright, Colebrook and Storer show definitely that the phagocytic and bactericidal properties of human blood vary in different individuals and that their agents may be considerably increased by the use of vaccines. I shall not go into detail regarding this research work because of the reliability of the authorities quoted, but there is, in this work, justification for the view that patients who do not respond to a septic infection lack some immunologic substance which the blood of a healthy donor may supply.

There is also convincing evidence in the work of Wright, Colebrook and Storer, that the immunizing of donors by vaccines adds materially to the value of their blood in treating a septic patient. Unfortunately, most of the clinical work of this type has been done in cases of bacterial endocarditis where failure to cure the patient is not a criterion as to the value of the method in general. Unger endorses this modification of blood transfusions, and Hooker reports 6 apparently hopeless cases of staphylococcus sepsis in which transfusions from immunized donors resulted in 4 recoveries. Ottenberg says of the procedure: "It is not illogical and is worthy of further trial."

Correction of the anemia so frequently associated with sepsis is important and this may be the determining factor in the outcome of a case. In acute infections occurring in otherwise healthy children and running a usual short course, anemia does not develop to any extent, but in the prolonged case, whatever the causative bacteria, there is almost invari-

bly a progressive anemia, due either to hemolytic activity of the organism or to its exhaustive effect upon the bone marrow. The incidence of septic infections is also greater in children already anemic from malnutrition, rickets, poor hygiene or other causes. These patients frequently get a renewed lease on life, or have their chances for recovery elevated nearer to a par with their healthy brothers, by the use of blood transfusions. The clinical reports of Ottenberg, Sidbury, Krahulik and Koch and others give statistical proof of this.

Libman and Ottenberg have shown that a single transfusion of a large volume of blood does not raise the hemoglobin in proportion to the amount of blood given. Repeated transfusions of small amounts, at intervals of a few days, or the exsanguination transfusion of Robertson will accomplish much more in correction of the anemia than will the same amount of blood injected at a single time; a fact which probably accounts for the general experience that greater value is to be expected from repeated small transfusions in septic conditions.

The general tonic effect from the food value of transfused blood or the chemical effect in the correction of a condition such as acidosis, operates to the benefit of the sick child in many cases. Prolonged sepsis and severe acute sepsis are always accompanied by more or less emaciation, dehydration or partial marasmus. In overcoming those conditions, whole-blood offers more lasting benefit than glucose, saline or other substances, and is practically as easy to administer. If immunizing agents are specific substances produced only in a patient, as some contend, it becomes more than ever important to feed and support the patient that he may devote more effort to increasing his own immunity.

Discussing the particular results noted in my own series of cases, I shall consider them under 4 groups into which they can be divided to bring out certain points regarding transfusion therapy.

In the largest group of cases there exist single or multiple foci of tissue-sepsis more or less extensive and varying in their tendency:

to progress. With all, there is anemia of some degree. The general effect upon the patient must be regarded as a toxemia, either because blood cultures were negative or, as was more often the case, because blood cultures were not taken even though the temperature and other symptoms were typically septic. All were sufficiently ill to cause alarm on the part of the attending physician, and some were desperately sick. Lowering of the temperature, clearing of the toxic symptoms, of delirium and restlessness, and improvement of the color, appetite and appearance of the local lesion, were the usual results of transfusions in these cases.

Erysipelas of the migrating type in infants and young children is one of the conditions showing the best results from blood transfusions.

REPORTED RESULTS IN TRANSFUSIONS IN ERYSIPELAS

	BIRTH TO 1 MONTH			Treated Cases		
	Untreated Cases			Death		
	Cases	Deaths	%	Cases	Deaths	%
Schaffer and Rothman	10	8	80	1	1	100
Robertson	6	5	80	3	3	50
Essex Co. Hosp.	3	2	66 2/3	4	0	0

	ONE MONTH TO 1 YEAR					
	Cases	Deaths	%	Cases	Deaths	%
	Cases	Deaths	%	Cases	Deaths	%
Schaffer and Rothman	38	19	50	13	3	22
Robertson	13	14	56	15	2	15
Essex Co. Hosp.	5	1	20	12	3	25

	ONE TO 5 YEARS					
	Cases	Deaths	%	Cases	Deaths	%
	Cases	Deaths	%	Cases	Deaths	%
Schaffer and Rothman	25	3	12	5	0	0
Essex Co. Hosp.	11	2	20	10	2	20

This disease is considered practically 100% fatal in the new-born and shows about 50% mortality in the age period of 1 month to 1 year. Robertson, Brown and Simpson, using exsanguination transfusions, were the first to report good results in this infection. They were able to show a reduction in the mortality rate of about one-half as a result of this type of treatment. Schaffer and Rothman reported equally convincing results from the Harriett Lane Home, in Baltimore, and the results in 27 cases from the Essex County Hospital for Contagious Diseases, herein reported, are especially gratifying as regards the new-born. Many of the latter group of patients received serum as well as transfusion,

but inasmuch as only the ones to which serum was proving of little or no avail were transfused, credit for the low mortality rate can be largely attributed to the blood transfusions. Dr. E. L. Smith, who had charge of the cases herein reported, regards transfusion as the "life-saving factor" in many of them, and he now uses it as a routine procedure in treating very young infants. The good effects seem to come from the supplying of some immunologic factor lacking in the blood of these infants, and the signs of improvement are noted in checking the rash, and lessening of the patient's temperature and toxicity.

Transfusion in children with pneumonia needs to be discussed on account of the feeling of many clinicians that the addition of any appreciable amount of fluid to the circulation is contraindicated because of the already heavily burdened heart and pulmonary circulation. Sufficient data is now at hand to prove that whole-blood may be transfused to these patients with considerable benefit, and it is significant that even those who have noted the least positive value from this procedure have not observed any bad effects. Even the patients with circulatory collapse, marked cyanosis and symptoms of the most profound toxemia have stood transfusion well. In the 14 cases of bronchopneumonia and 5 cases of lobar pneumonia of my series, there were 3 cases in which the consolidation affected 4 lobes, 3 lobes and 2 lobes, respectively, and in which cyanosis and circulatory collapse was present. These patients were transfused without any harmful effects, and with temporary improvement in 2, who later died, and improvement and ultimate recovery after 4 transfusions in the third.

BRONCHOPNEUMONIA IN INFANTS AND CHILDREN

	No. of cases	No. of transfusions	Mortality rate Died	%
Krahulik and Koch	73	118	18	25
Flynn	2	3	1	50
McClusky and Slesinger	6	6	3	50
Mitchell, Clay and Bower	3		0	0
This series	14	20	3	21

LOBAR PNEUMONIA				
	No. of cases	No. of transfusions	Mortality rate Died	%
Krahulik and Koch	23	54	3	13
Sidbury	11	13	1	9
This series	5	7	1	20

Leake and Brown have done considerable work in experimental pneumonia in dogs, in which they show an increasing anemia in the course of this disease, with destruction and deposits of the red cells in the lungs, liver, spleen and intestinal walls. Inasmuch as 30-40% of the total blood volume may be concentrated in the pneumonia area, the resulting anemia to the rest of the body, especially in prolonged cases, may become most embarrassing and may affect the prognosis most profoundly. The increased resistance shown by these patients in response to blood transfusion so many times may well be due to correction of the anemia and the addition of new oxygen carriers. Krahulik and Koch have found this supply of new blood especially important in patients requiring the oxygen tent.

The last group of cases to be discussed differs from the others in that, in addition to the local tissue sepsis, there is a bacteriemia as shown by one or more positive blood cultures. The 21 patients with whom this combination presented and the types of micro-organisms recovered, are shown here:

	No. cases	No. trans-fusions	Lived	Died
Sinus Thrombosis	18	59	17	1
Suppurative meningitis..	11	33	1	10
Osteomyelitis	1	12	1	0
Lobar pneumonia.....	1	1	1	0
Bronchopneumonia and empyema	1	2	0	1
Bacterial endocarditis ..	1	2	0	1
The bacteria found in these cases were:				
Hemolytic streptococcus.	11		8	3
Non-hemolytic streptococcus	14		8	6
Pneumococcus	4		3	1
Staphylococcus albus ...	1		1	0
Friedlander's bacillus ...	2		0	2
Influenza bacillus	1		0	1

The valuable work done recently in lobar pneumonia, chronic infectious arthritis and rheumatic fever has changed our views considerably as to the frequency with which bacteriemia exists, and as to the hopelessness of its significance so far as prognosis in relation to life is concerned. So far, these workers and the otologists are the only ones who have become accustomed to taking repeated blood cultures in cases of tissue infections.

Stetson has reported the largest series of

cases of bacteriemia treated by transfusions and has noted a reduction in the number of colonies of bacteria in the blood stream after the injection of unmodified whole-blood. He felt that in 68 cases which he reported there was a fighting chance for recovery in 57 (7 cases of malignant endocarditis and 4 moribund patients are excluded) and in these he showed a ratio of 31 recoveries to 20 deaths. My opinion is, that, providing the patient is properly supported, the most important consideration in sepsis with bacteriemia is whether or not the original focus is accessible to treatment, and whether or not it is recognized and eradicated before secondary foci become active in inaccessible parts. If we exclude the cases of suppurative meningitis and bacterial endocarditis in the series herein reported, we have a surprisingly low mortality rate. Credit for this in sinus thrombosis, of course, belongs largely to the surgeon otologists, but the large number of transfusions given in this group (50 to 18 patients) is some indication of the battle waged against the infection and of the important part transfusions played in the ultimate results. Whether the transfusion benefited by contributing passive immunity, or by overcoming the associated anemia, or by its nourishing support, is somewhat academic in importance when the clinical results are appraised.

Reactions following the transfusions occurred in 6.7% of the cases reported, but of these the great majority were mild, consisting only of a rise in temperature of 1° or more without other symptoms. Chills occurred in only 2 instances, with exception of the sinus thrombosis cases, where they were not regarded as transfusion reactions, if they were occurring at the time of the transfusion and their frequency was not increased by the procedure. In no case did transfusion cause a fatal reaction. The use of donors of the same group as the patient, and slow injection of relatively small amounts of blood, will prevent reaction in all but a few cases.

SUMMARY

(1) Three hundred and forty-two transfusions in 178 cases of septic infection in children are reported.

(2) The methods by which transfusions act to benefit the septic patient are discussed.

(3) Particular comment is made and statistics are given in regard to erysipelas (27 cases), bronchopneumonia (19 cases) and bacteremia (21 cases), because of special problems which they present in a consideration of transfusion therapy.

(4) The incidence of reactions in this series of cases is presented.

DISCUSSION

Dr. F. W. Lathrop (Plainfield): I think this is a very valuable paper and very interestingly presented. I am sure we are all using transfusions more and more. I believe Dr. Brown thinks the direct intravenous transfusions are better but, personally, I like the citrate method which is much more easy to do when working on the delicate veins. We certainly get striking results in the anemic pneumonia patient, equally valuable perhaps in the full-blooded type, but the anemic pneumonia patient should certainly have a transfusion. In the septicemias we are getting much better results than formerly. I believe in transfusing a baby if there is nothing else to do, but I do feel that the citrate method is more practical. I would like to get Dr. Brown's reaction to that again.

Dr. F. J. McCauley (Newark): I saw 3 of Dr. Brown's patients with erysipelas complications and I was sure those patients would die, but I understand that they recovered after the blood transfusions. I do not believe that there is any comparison between the serum treatment and the blood transfusions in a case of severe erysipelas. These were remarkable recoveries.

MANGANESE POISONING*

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Franklin, N. J.

Chronic manganese poisoning is a disease which at the present time is easily recognized, and the symptoms and physical findings of which are very definite. A typical case shows the following picture: First, a history of working in an atmosphere laden with a fine, dry, manganese dust for a period of 3 to 6 months. The patient first complains of a tired, laggy feeling, accompanied by cramps in the legs, confined almost entirely to the calf mus-

cles. As the disease progresses, he notices changes in the finer movements of the muscles, and disturbances in gait develop. He cannot walk down an incline without accelerating his gait and he is unable to walk forward on his toes. If he takes 1 or 2 steps backward, he loses control of himself and falls.

Physical examination, when the disease is well advanced, shows: The patient stands erect without swaying. Laughs inordinately and easily. Memory fair. Face is smooth, but most of the time the mouth is held open and there is a fixed, silly grin, which goes over readily to vigorous laughter. Skin clear, no pigmentation. Eyes: pupils equal; react readily to light and accommodation. No nystagmus and no abnormal movements of eyeballs. Teeth and gums normal. No salivation. Ears: hearing good; reactions of each labyrinth and each auditory nerve normal. Tonsils and pharynx normal. Speech very slow; voice clear but always low. Heart and lungs normal. No arteriosclerosis; no rise in blood pressure. Abdominal reflexes present and hyperactive. No masses or tenderness. Extremities: no wasting or paralysis; constant coarse tremor, not intensified by intention. Reflexes present, equal and increased. There is no muscle tenderness and no cramps could be elicited during examination. Patient unable to walk forward on toes. In picking up an object from floor, patient always rests the fingers on the floor first, to recover balance before touching object. In attempting to walk backward, patient always falls. In sitting down in a low chair, patient "slaps" the chair and feet come off ground. No changes in blood. Spinal fluid negative. Wassermann, negative. Urine, negative.

Edsall and Drinker have compared the symptomatology of manganese poisoning with that of "progressive lenticular degeneration, a familiar nervous disease associated with cirrhosis of the liver" described by Wilson in 1912. Their conclusions are: "In the entire absence of sensory disturbances, the 2 conditions, lenticular degeneration and chronic manganese poisoning, are strikingly similar." It is significant that in the disease described

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by Wilson, the pathologic changes are sharply localized, and in his opinion are due to the action of a toxin which is definitely selective for cells and fibers of the putamen and lenticular nucleus generally. In chronic manganese poisoning, it would seem possible that there is the same selective affinity.

"If the disease does affect the central nervous system, it seems to do so by cutting off the ordinary inhibitory control upon which we depend for smoothness of muscular action. In normal individuals, with contraction of the biceps there is a simultaneous relaxation of the triceps, which allows the biceps to operate easily and without undue load. In the manganese cases the great characteristic of the muscular movements seems to hinge on the absence of just such reciprocal relations. When a patient walks, he uses all the muscles of the leg violently. He gets no return for half of this muscular effort, indeed it resists the movements he wishes to make. The early languor, sleepiness and fatigue so characteristic of the disease arise from excessive muscular work which the patients involuntarily accomplish in attempting to carry out their mill work. They are tired all the time."

Mella, in 1924, reported the results of his aim to produce experimentally symptoms like those of paralysis agitans. He reports the findings in 6 monkeys that were given gradually increasing doses of manganese chloride intraperitoneally for 18 months. His conclusions are: "From a study of these preliminary experiments, it appears that in monkeys poisoned with manganese there were observed certain abnormal movements and disturbances of locomotion, which are usually attributed to lesions of the basal ganglions. The histopathologic picture in these animals shows definite changes, most pronounced in the striatum, pallidum and liver."

The disease was first described by Couper, in 1837, in men who handled manganese dioxide. In all, 15 cases were described in the foreign literature up to 1907. In 1913, Casamajor described 9 cases occurring in the mill of a zinc mine handling a manganese ore. The first of these cases dated back to a single pa-

tient who, from the history, developed the disease in 1898. He worked in a very dusty atmosphere where there was no attempt at dust collection. In 1902, a new mill was put into operation and a dust collecting system began operation in 1905. During this interval there is a record of 4 cases developing: 3 in 1904, and 1 in 1905. No cases developed during the following 3 years. In 1909, 2 cases appeared, and in 1910 there were 3 more.

There is 1 case reported as beginning in 1913. In 1916, urged to extreme production by the war, the mill was enlarged and there was more intensive production. This mill was first operated without a dust collecting system. Installation of a dust collection system was begun in 1917 and completed in 1919. One case developed in 1916, 6 in 1917, 11 in 1918, and 4 in the first half of 1919. Medical examinations of all the men working in the mill were begun in September 1918 and have been continued at least twice a year ever since.

The examination consisted of the employment record, history of sleepiness or cramps in the legs, tremors, testing the reflexes, and records of any change in gait of the individual. Workmen showing suggestive symptoms were protected against dust and kept under close observation.

Examinations in September 1919 and subsequently, showed no new cases had developed between the first 6 months of 1919 and the second, after the installation of the dust collecting system. One case has developed since that date; this occurred in 1924, in a man who had been in the heavy artillery in France and suffered from shell-shock.

In 1922, Davis and Huey added 2 cases from Illinois, and in 1925, R. Finley Gayle reported 6 cases occurring in a manganese grinding plant in Virginia.

Prior to 1916, it was felt that individual susceptibility played a large part in the occurrence of the disease, as so few cases developed among a large number of employees. But during 1917, 1918 and 1919, cases developed rapidly when concentration of the dust increased. When the fan system of dust collection was completed, reports of cases stopped, and since

the first 6 months of 1919 only 1 new case has appeared, though on a number of occasions men have been placed under observation and eventually returned to work, without having shown any development of symptoms which could be ascribed definitely to manganese. In January 1931, an autopsy was obtained on a patient who died of myocarditis. Serial sections are now being made for microscopic findings. This patient had well-marked signs of manganese poisoning in 1919 and was removed from the dusty environment, but had continued to show symptoms until his death.

In conclusion, manganese poisoning will occur with concentration of the dust. Early symptoms may be recognized and the men removed from a dusty atmosphere to prevent the crippling that occurs in advanced conditions. The disease is easy to recognize and may be prevented completely if adequate dust removal is accomplished. Treatment has given little or no results, but after removal from the dust the symptoms do not advance and we find some improvement. Many of the men have been able to take up some other line of employment since leaving the mill.

AN ANALYSIS OF 300 CASES OF PAIN TREATED BY MAGNESIUM COMBINATIONS

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Meltzer, in 1905, published a pioneer article concerning the effects of magnesium salts upon the nervous system. In 1906, Joseph Blake followed with a very practical application to anesthesia and tetanus. Heubold and Meltzer went a step further and proposed a direct action for the magnesium ion by introduction into the central nervous system; and later, alone or in combination with others, published a number of reports on these subjects in various journals. Thus, fundamental interest in the magnesium ion, as apart from

the physicochemical properties of the various Mg-salts previously official in the Pharmacopeia and National Formulary, was directed toward its effect upon nerve tissue. Empiricism thus anticipated by almost a quarter century the pharmacologic research of Kaer and Loewe concerning the effects of magnesium upon drugs affecting the central nervous system. It is unnecessary for the writer to review the enormous bibliography of the intervening years concerning biologic and physiologic researches upon magnesium, for which the reader is referred to the Cumulative Quarterly Index and Chemical Abstracts. It probably suffices to say that during the latter part of this period the question of magnesium antagonism and synergism was increasingly to the fore, to witness which, note the work of Gates and Meltzer, Meltzer and Auer, and Joseph. It seems curious that whereas no scientist of repute appears seriously to have questioned the various physiologic antagonisms to magnesium (calcium, oxalates, physostigmin), the claims for synergism have been heartily belabored. The theory of drug synergism was given considerable scientific standing through the inclusion by Meyer and Gottlieb of a definition in their text. Buergi had previously dealt with the same subject. The writer has referred in a previous paper to the report of Barbour and his associates, for their fundamental work on the pharmacology of absorption of magnesium and potentiation by magnesium of such drugs as amidopyrine, acetylsalicylic acid, phenylcinchoninic acid, and phenacetin. The Gwathmey technic in synergistic analgesia is, of course, too well known to require comment.

A neurologist must offer some apology for entering the field of internal medicine via the therapeutic route. Neurology is a branch of internal medicine and the problems discussed herein are common to both fields. The richness of the precedent literature attracted the writer's attention and intrigued his curiosity to such extent that the herein reported cases were planned and carried out. Because of the frequent and casual criticism of "clinical observations" it might not be amiss at this point

to defend their place in medical literature. In the practice of medicine, as in the practice of any art which has not as yet become an exact science, it is the empiricist who must lead the way. To this method must be credited most, if not all, the striking discoveries in medicine. The age-old cry of the medical reactionary, to the unexplained but undoubted facts of empiricism, has ever been "Impossible!" In the testing of drugs, as in the testing of food and allied products, faddism holds full sway at the moment. The results recorded in this paper are empiric, and they are clinical observations. They form a link in the chain of evidence—an essential link—which binds the pharmacology and biochemistry to the more precise and detailed studies of the clinic and the hospital ward. Such studies add to the sum-total of medical opinion, whose weight must, in the last analysis, give a decision which shall be final.

In the treatment of nervous disorders, the neurologist is peculiarly at the mercy of subjective symptoms. The medicaments in his armamentarium are stimulative, sedative, alterative, or palliative, as the case may be, but—little as we may care to admit it—seldom curative. We must except, of course, the antiluetics. How often, otherwise, do we see the prompt reversal of a reflex by a single drug? The aim of the neurologist is to improve his patient's fighting chances. If it were shown, as the writer believes it has been shown, that the action of magnesium upon the commonly employed analgesics is pharmacologically and clinically to enhance their action beyond a simple additive effect; then it follows that we have in such combinations a new form for the administration of such drugs in smaller quantities than would be otherwise required. The dehydrating, and possibly neurologic effects, of magnesium are also to be remembered.

METHOD AND MATERIAL

The cases cited in the appended tables concern unselected ambulatory patients as they appeared in extramural practice. They were thus grouped and summarized in attached tables of chart "B". In tables of chart "A"

some attempt was made to group the cases according to the character and origin of the neural irritation, the complete scientific accuracy of which is, of course, always open to question.

The combinations used were: (a) with neocinchophen, in which each 5 gr. tablet contained 3 gr. neocinchophen and 2 gr. magnesium oxide; (b) with acetylsalicylic acid 3 1/3 gr. and magnesium oxide 3 1/3 gr.; (c) with 2 1/2 gr. amidopyrine and 2 gr. magnesium oxide. Other suitable magnesium compounds might be used, but the oxide was chosen because of its physical compatibilities and proved absorbability. A rough formula, as a basis for the determination of dosage, was arrived at by experience, as follows: For each 10 lb. of body weight the patient was given 1 tablet in 24 hours of the magnesium combination with neocinchophen; and for each 25 lb. body weight 1 tablet of the magnesium combination with acetylsalicylic acid was given. No weight formula was arrived at for the combination with amidopyrine. It will be noted that large doses were not required to alleviate pain, but large doses were given over a period of time, as in the practice of every neurologist, to maintain the patient in a comfortable state and mentally at ease.

As a practicing neurologist in a small city, the writer sees chiefly extramural patients who have been either referred to him in consultation or whose families he has been treating for a considerable number of years. Under those circumstances it is obvious that their reactions to the ordinary analgesics must be fairly well known to the physician, as well as to the patient. It is needless in a paper of this scope to enter into the internal medical history of each condition for which a particular analgesic was prescribed. There is nothing curative of a pathologic condition in amidopyrine, acetylsalicylic acid, or neocinchophen, but in the respective fields of headache, generalized pain, or neuromuscular pain, these have stood the test of time as peculiarly suitable and efficient drugs in moderate dosage. Various adjuvant treatments were, of course,

directed toward elimination of the cause, where ascertainable, of the varied pathologic conditions.

DISCUSSION CONCERNING MAGNESIUM WITH NEOCINCHOPHEN

In a previous paper we described in some detail the reactions of a group of arthritides and myalgias to magnesium with neocinchophen. Since one of the chief criteria of medical treatment of any kind is the "follow-up" system, it must be of some interest to learn of the continued effects which these same drugs produce under the same conditions in the same patients. It would be a needless repetition of details to chart all cases in the same manner in which the original cases were charted, but it should be noted that, in general, none of these patients has failed to react in the usual and satisfactory manner to the magnesium combination with neocinchophen, and none has sought other analgesics as preferable for the occasional treatment of arthritis or neuralgia which they require. The writer believes that a weight-area ratio may be worked out to advantage for determination of the dosage of this drug.

Some little explanation is necessary for the magnesium combination with neocinchophen. The widespread interest in toxicity has failed to reveal a single authentic death due to pure neocinchophen, verified by autopsy; and it should be remembered that neocinchophen is not a salt of cinchophen but an organic ester of *paramethyl* cinchophen. Those who have read the German chemical literature are aware of the fact that differences in side-chains completely alter the toxicities of ring compounds. It is not yet known whether the Mg-ion still further lessens the toxicity.

DISCUSSION OF MAGNESIUM AND AMIDOPYRINE

This was, in general, a test of the analgesic effect of a combination of equal parts of magnesium and amidopyrine with various other analgesics. It will be noted that its ability to relieve luetic pain was very pronounced. There was great individual variability in the reac-

tions to acetylsalicylic acid compared with the reaction to this drug. Certain individuals were relieved by comparatively small doses of the amidopyrine combination, whereas in other cases it was somewhere near equivalent to the previous medication. Obviously, the length of treatment in each of these cases where pain alone was the symptom has no bearing upon this paper, since this is a discussion of the comparative analgesic effect of a definite combination. Courses of treatment for pain are continued, regardless of the medication employed, for the duration of the pathologic conditions which produce the symptom. There is nothing curative in an analgesic. To cite case histories for the more than 300 patients comprised in this series is, of course, impossible in a brief paper. It is rather remarkable to note that the effects of this drug lean toward a decided superiority over analgesics containing hypnotics, a difference which would not have been predicted prior to the actual trials. It is quite apparent that at least the magnesium combination is grain for grain equivalent to amidopyrine. It is of interest to note in connection with any possible toxicity of this drug that 1 patient, a woman, took 280 gr. with suicidal intent; and no serious symptoms developed.

DISCUSSION OF ACETYSALICYLIC ACID WITH MAGNESIUM

In contradistinction to the preceding series, this series was undertaken as approximately a grain for grain comparison of acetylsalicylic acid and acetylsalicylic acid in combination with magnesium. This does not mean that equal quantities of acetylsalicylic acid were employed; but rather that 5 gr. of acetylsalicylic acid alone was compared with about 3 1/3 gr. of acetylsalicylic acid when combined with magnesium.

From an inspection of the tabulations it is obvious that the 2 tables may at least be considered equivalent, and the superior toleration and greater rapidity of effect is in favor of the latter; while, of course, a much smaller dosage is permitted. It is obvious to anyone who has employed these drugs that acetyl-

salicylic acid occupies a middle ground as an analgesic between neocinchophen and amidopyrine, but possesses the advantage, possessed by neither of the others, of diaphoresis when properly administered. The tabulations are self-explanatory.

In the course of this investigation it was found that the toleration of such drugs as neocinchophen and acetylsalicylic acid is greatly improved by their combination with magnesium.

SUMMARY

(1) A follow-up of 100 cases of pain chiefly due to neuritis and neuralgia, arthritis, and such conditions, has demonstrated that the combination of magnesium with neocinchophen promptly relieves pain with minimum dosage.

(2) For the relief of pain in neurologic conditions, the 3 combinations discussed in this paper may be arranged in order of effectiveness, from lesser to greater, as follows: magnesium and neocinchophen, magnesium and acetylsalicylic acid, magnesium and amidopyrine.

(3) The combination of magnesium with neocinchophen has been found particularly efficacious in cases of myoneural irritation. The combination of magnesium with amidopyrine has been found particularly efficacious in deep-seated nerve pain, especially in cerebral irritation and tabetic crises. Magnesium and acetylsalicylic acid has been found particularly efficacious where a mild analgesic with slight diaphoretic powers is required over a period of time.

(4) Magnesium with neocinchophen, magnesium with acetylsalicylic acid, and magnesium with amidopyrine have been found respectively equivalent grain for grain to neocinchophen, acetylsalicylic acid, and amidopyrine.

(5) The use of magnesium in such conjunction would appear to offer a means to the neurologist of obtaining maximum effects with minimum dosage and at the same time securing the additional advantage of improved gastric toleration.

CHART A—GROUP M

I = Improved
U = Unimproved
R = Recovered

RESULTS WITH ACETYSALICYLIC ACID AND MAGNESIUM

For relief of pain associated with—	Result			Totals
	I.	R.	U.	
Central nervous irritation—				
Cerebral irritation	17		1	18
Myoneural irritation—				
Myalgia	10			10
Arthritis	3			3
Rheumatism-chorea syndrome	1			1
Deep pain nerve irritation—				
Sinusitis	1			1
Infections	6		2	8
Dysmenorrhea	19			19
Peripheral nerve irritation—				
Headache	46	2	5	53
Neuritis and neuralgia...	4	3		7
				120

CHART A—GROUP P

I = Improved
U = Unimproved
R = Recovered

RESULTS WITH AMIDOPYRINE AND MAGNESIUM

For relief of pain associated with—	Result			Totals
	I.	R.	U.	
Central nervous irritation—				
Tabetic crises	8	1		9
Cerebral irritation	19		6	25
Tic douloureux	4	1		5
Myoneural irritation—				
Myalgia		3	1	4
Arthritis			1	1
Deep pain nerve irritation—				
Sinusitis	2			2
Infections	10	1		11
Dysmenorrhea	1			1
Peripheral nerve irritation—				
Headache	26	7	7	40
Neuritis and neuralgia...	3		2	5
Miscellaneous	1			1

CHART B, GROUP M—MAGNESIUM AND ACETYSALICYLIC ACID

Case No.	Sex	Age	Initials	Diagnosis	Prior medication	Result	Magnesium medication	Result
1.	F	43	H.R.L.	Headache	Acetylsal. ac. 40 gr.	0	10 gr. p.r.n.	***
2.	F	13	G.O.	Dysmenorrhea	Acetylsal. ac. 40 gr.	0	40 gr.	***
3.	F	39	C.O.	Chronic headache	Acetylsal. ac. 40 gr.	0	70 gr.	***
4.	F	40	W.R.	Dysmenorrhea	Acetylsal. ac. 40 gr.	0	40 gr.	**
5.	F	56	M.S.	Phlebitis	Acetylsal. ac. 40 gr.	0	35 gr. hs.	***
6.	M	43	W.S.	Encephalitis—chronic headache	Acetylsal. ac. 40 gr.	0	40 gr.	***
7.	M	66	J.W.T.	Chronic arteriosclerosis with headache	Acetylsal. ac. 75 gr.	**	75 gr.	***
8.	M	27	M.T.	Grand mal epilepsy with chronic headache	Acetylsal. ac. 40 gr.	**	40 gr.	***
9.	F	37	B.W.	Multiple arthritis with sciatica	Acetylsal. ac. 60 gr.	**	60 gr.	**
10.	F	40	J.M.A.	Headache—grippe	Acetylsal. ac. 40 gr.	*		*
11.	M	38	F.A.	Headache—thromboses, cerebral	Acetylsal. ac. 30 gr.	*	30 gr.	*
12.	F	29	F.A.	Myalgia	Acetylsal. ac. 65 gr.	**	65 gr.	**
13.	F	27	E.B.A.	Headache	Acetylsal. ac. 40 gr.	**	40 gr.	**
14.	M	18	W.A.	Headache	Acetylsal. ac. 30 gr.	**	30 gr.	**
15.	M	16	R.A.	Headache	Acetylsal. ac. 30 gr.	**	30 gr.	**
16.	M	33	B.F.A.	Headache	Acetylsal. ac. 20 gr.	**	20 gr.	**
17.	F	11	A.A.	Grippe	Acetylsal. ac. 35 gr.	**	35 gr.	**
18.	F	71	J.A.	Hypertensive headache	Acetylsal. ac. 40 gr.	**	40 gr.	**
19.	F	35	A.A.	Headache—grippe	Acetylsal. ac. 15 gr.	**	15 gr.	**
20.	F	21	H.A.	Backache	Acetylsal. ac. 15 gr.	**	15 gr.	**
21.	F	34	V.A.	Backache	Acetylsal. ac. 30 gr.	**	30 gr.	**
22.	F	37	I.A.	Dysmenorrhea	Acetylsal. ac. 30 gr.	**	30 gr.	**
23.	F	46	J.T.A.	Grippe—Ca of uterus also	Acetylsal. ac. 60 gr.	*	60 gr.	*
24.	F	45	J.A.	Headache	Acetylsal. ac. 30 gr.	*	30 gr.	***
25.	F	29	S.A.	Chronic headache	Acetylsal. ac. 60 gr.	?	60 gr.	?
26.	F	50	D.A.	Pituitary headache	Acetylsal. ac. 80 gr.	**	40 gr.	**
27.	M	37	W.B.	Sinusitis headache	Acetylsal. ac. 40 gr.	**	40 gr.	**
28.	F	57	L.B.	Hypertensive headache—menopause	Acetylsal. ac. 30 gr.	*	30 gr.	*
29.	F	17	B.B.	Dysmenorrhea	Acetylsal. ac. 30 gr.	**	30 gr.	**
30.	F	35	N.L.B.	Backache	Acetylsal. ac. 30 gr.	***	30 gr.	***
31.	F	35	C.C.B.	Headache	Acetylsal. ac. 30 gr.	**	30 gr.	**
32.	M	47	C.C.B.	Headache	Acetylsal. ac. 30 gr.	**	30 gr.	**
33.	F	37	V.T.B.	Migraine	Acetylsal. ac. 30 gr.	*	30 gr.	*
34.	F	69	M.T.B.	Lumbosacral backache	Acetylsal. ac. 30 gr.	**	30 gr.	**
35.	F	6	G.B.	Tonsillitis	Acetylsal. ac. 20 gr.	*	20 gr.	*
36.	F	16	B.C.	Dysmenorrhea	Acetylsal. ac. 30 gr.	*	30 gr.	*
37.	M	21	C.C.	Headache	Acetylsal. ac. 30 gr.	*	30 gr.	*
38.	F	25	F.C.	Dysmenorrhea	Acetylsal. ac. 30 gr.	**	30 gr.	**
39.	F	29	A.C.	Menstrual headache	Acetylsal. ac. 30 gr.	***	30 gr.	***
40.	F	34	F.C.	Headache	Acetylsal. ac. 15 gr.	**	15 gr.	**
41.	F	42	R.C.	Backache	Acetylsal. ac. 15 gr.	**	15 gr.	**
42.	F	46	S.J.C.	Headache	Acetylsal. ac. 10 gr. p.r.n.	***	10 gr. p.r.n.	***
43.	F	36	D.R.C.	Headache	Acetylsal. ac. 15 gr.	**	15 gr.	**
44.	F	46	G.M.C.	Dysmenorrhea	Acetylsal. ac. 10 gr. p.r.n.	**	10 gr. p.r.n.	**
45.	M	42	R.H.C.	Backache	Acetylsal. ac. 10 gr. p.r.n.	**	10 gr. p.r.n.	**

Case No.	Sex	Age	Initials	Diagnosis	Prior medication	Result	Magnesium medication	Result
46.	M	60	E.F.C.	Post-encephalitic headache	Acetylsal. ac. 10 gr. p.r.n.	**	10 gr. p.r.n.	**
47.	M	17	E.E.	Neuritis	Acetylsal. ac. 30 gr.	**	30 gr.	**
48.	M	58	F.W.F.	Headache	Acetylsal. ac. 40 gr.	**	40 gr.	**
49.	F	27	E.F.	Migraine	Acetylsal. ac. 30 gr.	*	30 gr.	*
50.	F	55	M.G.	Headache	Acetylsal. ac. 30 gr.	**	30 gr.	**
51.	F	41	H.G.	Headache	Acetylsal. ac. 10 gr. p.r.n.	**	10 gr. p.r.n.	**
52.	F	32	G.G.	Menstrual headache	Acetylsal. ac. 30 gr.	**	30 gr.	**
53.	F	32	T.G.	Headache	Acetylsal. ac. 40 gr.	**	40 gr.	**
54.	F	26	A.G.	Dysmenorrhea	Acetylsal. ac. 30 gr.	**	30 gr.	**
55.	F	40	J.H.	Dysmenorrhea	Acetylsal. ac. 15 gr.	**	15 gr.	**
56.	F	18	B.H.	Headache	Acetylsal. ac. 30 gr.	**	30 gr.	**
57.	F	60	H.H.	Headache	Acetylsal. ac. 30 gr.	**	30 gr.	**
58.	F	31	M.H.	Menstrual headache	Acetylsal. ac. 10 gr. p.r.n.	**	10 gr. p.r.n.	**
59.	F	40	F.H.	Headache	Acetylsal. ac. 10 gr.	**	10 gr.	**
60.	F	28	J.H.	Intercostal neuritis	Acetylsal. ac. 10 gr. p.r.n.	**	10 gr. p.r.n.	**
61.	M	32	J.H.	Headache	Acetylsal. ac. 10 gr. p.r.n.	**	10 gr. p.r.n.	**
62.	F	39	W.R.H.	Headache	Acetylsal. ac. 30 gr.	**	30 gr.	**
63.	F	55	W.H.	Headache	Acetylsal. ac. 30 gr.	**	30 gr.	**
64.	F	40	C.H.	Headache	Acetylsal. ac. 10 gr. p.r.n.	**	10 gr. p.r.n.	**
65.	F	42	K.I.	Headache	Acetylsal. ac. 30 gr.	*	30 gr.	*
66.	F	25	E.J.	Chronic headache	Acetylsal. ac. 80 gr.	**	10 gr. p.r.n.	**
67.	F	44	C.J.	Headache	Acetylsal. ac. 20 gr.	**	20 gr.	**
68.	F	49	M.K.	Hypertensive headache	Acetylsal. ac. 10 gr. p.r.n.	*	10 gr. p.r.n.	*
69.	F	21	M.L.	Headache—pyelitis	Acetylsal. ac. 10 gr. p.r.n.	**	10 gr. p.r.n.	**
70.	M	43	H.R.L.	Alcoholic headache	Acetylsal. ac. 10 gr. p.r.n.	**	10 gr. p.r.n.	**
71.	F	39	E.L.M.	Dysmenorrhea	Acetylsal. ac. 30 gr.	**	30 gr.	**
72.	F	43	B.M.	Dysmenorrhea	Acetylsal. ac. 40 gr.	**	40 gr.	**
73.	F	26	H.M.	Dysmenorrhea	Acetylsal. ac. 30 gr.	**	30 gr.	**
74.	F	32	A.W.N.	Dysmenorrhea	Acetylsal. ac. 10 gr. p.r.n.	**	10 gr. p.r.n.	**
75.	F	28	I.N.	Intercostal neuritis	Acetylsal. ac. 40 gr.	**	40 gr.	**
76.	F	39	M.N.	Chronic headache	Acetylsal. ac. 15 gr.	**	15 gr.	**
77.	M	40	C.O.	Traumatic headache	Acetylsal. ac. 40 gr.	**	40 gr.	**
78.	F	60	H.L.P.	Headache	Acetylsal. ac. 10 gr. p.r.n.	*	10 gr. p.r.n.	*
79.	M	28	H.P.	Post-encephalitic headache	Acetylsal. ac. 10 gr. p.r.n.	*	10 gr. p.r.n.	*
80.	F	50	B.P.	Dysmenorrhea	Acetylsal. ac. 30 gr.	**	30 gr.	**
81.	F	66	J.H.R.	Headache	Acetylsal. ac. 40 gr.	**	40 gr.	**
82.	F	26	F.K.R.	Headache	Acetylsal. ac. 10 gr. p.r.n.	*	10 gr. p.r.n.	*
83.	F	48	E.S.	Headache—oöphorectomy	Acetylsal. ac. 10 gr. p.r.n.	**	10 gr. p.r.n.	**
84.	F	50	E.C.S.	Chronic headache	Acetylsal. ac. 30 gr.	**	30 gr.	**
85.	M	50	I.S.	Headache	Acetylsal. ac. 40 gr.	**	40 gr.	**
86.	F	63	W.H.S.	Backache	Acetylsal. ac. 15 gr.	**	15 gr.	**
87.	M	29	F.H.S.	Headache	Acetylsal. ac. 30 gr.	**	30 gr.	**
88.	M	29	M.S.	Chronic headache	Acetylsal. ac. 10 gr. p.r.n.	**	10 gr. p.r.n.	**
89.	F	28	R.S.	Dysmenorrhea	Acetylsal. ac. 40 gr.	**	40 gr.	**
90.	F	30	H.S.	Dysmenorrhea	Acetylsal. ac. 30 gr.	**	30 gr.	**
91.	F	45	I.S.	Headache	Acetylsal. ac. 30 gr.	**	10 gr. p.r.n.	**
92.	M	51	J.A.S.	Neuritis	Acetylsal. ac. 10 gr. p.r.n.	**	30 gr.	**
93.	F	14	M.T.	Dysmenorrhea	Acetylsal. ac. 30 gr.	*	15 gr.	*

Case No.	Sex	Age	Initials	Diagnosis	Prior medication	Result	Magnesium medication	Result
94.	F	61	J.W.T.	Hypertensive (arteriosclerotic) headache	Acetylsal. ac. ?	**	?	**
95.	F	21	E.T.	Dysmenorrhea	Acetylsal. ac. 40 gr.	**	40 gr.	**
96.	F	40	H.M.T.	Hypertensive headache	Acetylsal. ac. 30 gr.	**	30 gr.	**
97.	M	43	H.M.T.	Headache	Acetylsal. ac. 10 gr. p.r.n.	*	10 gr. p.r.n.	*
98.	M	14	R.T.	Headache	Acetylsal. ac. 10 gr. p.r.n.	*	10 gr. p.r.n.	*
99.	M	21	W.T.	Headache	Acetylsal. ac. 10 gr. p.r.n.	**	10 gr. p.r.n.	**
100.	M	31	A.T.T.	Headache—(chronic conjunctivitis)	Acetylsal. ac. 40 gr.	**	10 gr. p.r.n.	**
101.	M	8	R.T.	Migraine	Acetylsal. ac. 20 gr.	*	20 gr.	*
102.	F	65	M.E.W.	Backache—pyelitis	Acetylsal. ac. 30 gr.	*	30 gr.	*
103.	F	36	F.H.W.	Backache	Acetylsal. ac. 30 gr.	**	30 gr.	**
104.	F	58	M.W.	Hypertensive headache	Acetylsal. ac. 50 gr.	**	50 gr.	**
105.	F	34	A.W.	Headache	Acetylsal. ac. 10 gr. p.r.n.	**	10 gr. p.r.n.	**
106.	M	54	E.B.W.	Chronic headache	Acetylsal. ac. 40 gr.	**	40 gr.	**
107.	M	31	M.W.	Headache	Acetylsal. ac. 30 gr.	**	30 gr.	**
108.	M	33	J.M.A.	Petit mal epilepsy with headache	Luminal 6 gr.	***	40 gr.	***
109.	F	35	A.B.	Neuritis, left arm—grippe	None	0	30 gr.	***
110.	F	44	M.M.C.	Myalgia—constant headache	Luminal 2 1/4 gr.	*	40 gr.	***
111.	F	52	S.C.	Osteo-arthritis	Neomagnephene 80 gr.	**	40 gr.	**
112.	F	29	H.D.S.	Headache	None	0	30 gr.	***
113.	F	55	A.D.	Pleurisy with effusion	Neomagnephene 60 gr.	**	40 gr.	***
114.	F	40	R.E.	Hypertrophic arthritis—chronic headache—right oophoritis	Amidopyrine 30 gr.	**	40 gr.	***
115.	F	21	J.G.	Headache	Amidopyrine 15 gr.	**	30 gr.	**
116.	F	14	R.H.	Chorea—osteomyelitis	Fowler's solution	0	40 gr.	**
117.	M	51	W.W.H.	Neuritis	Acetylsalicylic acid 60 gr.	**	60 gr.	**
118.	F	34	L.J.	Neuritis	None	0	60 gr.	***
119.	F	30	R.K.	Chronic headache	None	0	30 gr.	***
120.	M	82	L.W.K.	Occipital headache—insomnia	Allonal ?	0	40 gr.	***

KEY 0 = Unsatisfactory relief ** = Good relief
 * = Fair relief *** = Complete relief

CHART B, GROUP P—MAGNESIUM AND AMIDOPYRINE

Case No.	Sex	Age	Initials	Diagnosis	Prior medication	Result	Magnepyrine medication	Result
1.	M	42	J.W.G.	Headache—polycythemia vera.	Pyramidon 100 gr.	**	30 gr.	**
2.	F	43	M.N.	Tic douloureux	Pyramidon 30 gr.	**	30 gr.	**
3.	F	29	J.S.	Froelich headache	Pyramidon 30 gr.	***	30 gr.	***
4.	M	27	M.S.	Occipital neuralgia	Pyramidon 30 gr.	*	30 gr.	*
5.	F	15	C.T.	Headache	Pyramidon 30 gr.	**	30 gr.	**
6.	M	23	W.W.	Intracranial pressure	Pyramidon 30 gr.	0	30 gr.	0
7.	F	53	W.W.	Grippe	Pyramidon 30 gr.	**	30 gr.	**
8.	F	22	M.Z.	Severe headache	Pyramidon 30 gr.	***	30 gr.	***
9.	F	42	J.C.	Migraine—Addison's disease	Pyramidon 30 gr.	***	30 gr.	***
					Amidopyrine 10 gr. p.r.n. 1 adrenal cortex	***	10 gr. p.r.n.	***
10.	M	42	R.H.C.	Headache	Amidopyrine 30 gr.	**	30 gr.	**

Case	Sex	Age	Initials	Diagnosis	Prior medication	Result	Magnepyrine medication	Result
11.	F	22	J.S.	Chronic headache	Amidopyrine 30 gr.	***	30 gr.	***
12.	F	22	K.A.	Peritonsillar abscess—spontaneous rupture	Aspirin 10 gr. q.i.h.	**	5 gr. q.i.h.	**
13.	F	24	L.B.	Headache	Aspirin 40 gr.	**	15 gr.	**
14.	F	35	V.B.	Severe menstrual headache	Opium?	*	30 gr.	*
15.	M	38	J.B.	Meniere's disease	Neomagnephen 40 gr.	***	30 gr.	***
16.	F	54	B.C.	Headache	None	0	30 gr.	***
17.	F	28	A.C.	Headache	Acetanilid and aspirin?	*	30 gr.	*
18.	F	56	W.C.	Migraine	Neomagnephen 40 gr.	*	30 gr.	*
19.	F	36	D.R.L.C.	Headache—Addison's disease	Glandular	0	30 gr.	***
20.	F	23	W.H.B.C.	Grippe	Aspirin 30 gr.	**	30 gr.	***
21.	M	26	A.H.C.	Headache	Tolysin 30 gr.	**	30 gr.	***
22.	M	48	J.C.	Chronic headache	Various	0	10 gr. p.r.n.	***
23.	F	38	H.C.	Headache	Allonal 4 tab.	***	30 gr.	***
24.	F	40	M.G.D.	Tic douloureux	Aspirin 30 gr.	**	10 gr. p.r.n.	***
25.	M	31	C.D.	Cervical adenitis	None	0	30 gr.	**
26.	F	19	G.E.	Headache	None	0	30 gr.	***
27.	M	29	E.F.	Grippe	None	0	30 gr.	***
28.	F	42	E.F.	Tabetic crisis	Antiluetic	*	10 gr. p.r.n.	***
29.	M	40	J.F.	Tabetic crisis	Antiluetic	0	10 gr. p.r.n.	***
30.	F	54	M.G.	Intracranial pressure	Neomagnephen 80 gr.	**	30 gr.	***
31.	F	45	C.H.	Headache—brain teratoma	Aspirin 10 gr. p.r.n.	**	10 gr. p.r.n.	***
32.	F	46	C.C.H.	Pituitary headache	Pituitary extract 0	0	30 gr.	***
33.	M	44	F.L.H.	Epilepsy	Neomagnephen 80 gr.	**	30 gr.	*
34.	F	59	C.E.H.	Occipital neuralgia	Neomagnephen 80 gr.	***	30 gr.	***
35.	F	29	M.H.	Neuralgia, right hand	Magnepyrin 30 gr.	**	30 gr.	***
36.	F	62	H.H.	Occipital neuralgia	Various	**	30 gr.	***
37.	F	41	J.S.H.	Headache	Magnepyrin 80 gr.	**	30 gr.	***
38.	F	40	K.I.	Migraine	Neocinchophen 50 gr.	**	30 gr.	***
39.	F	49	M.K.	Headache	Magnepyrin 40 gr.	**	30 gr.	***
40.	M	84	L.W.K.	Headache	Magnepyrin 30 gr.	**	20 gr.	***
41.	F	27	E.K.	Headache	Aspirin 30 to 40 gr.	**	30 gr.	***
42.	M	22	M.L.	Dementia precox	Luminal 1½ gr.	*	30 gr.	***
43.	F	30	M.L.	Headache	Aspirin p.r.n.	**	10 gr. p.r.n.	***
44.	M	13	O.L.	Escaped neurasthenia	Luminal 1¼ gr.	**	40 gr.	***
45.	F	18	G.L.	Dysmenorrhea	None	0	10 gr. p.r.n.	***
46.	F	24	A.R.M.	Retropositionment	Paregoric and 5 allonal tab.	***	30 gr.	***
47.	M	31	C.M.	Myositis	Neomagnephen 80 gr.	**	30 gr.	***
48.	M	62	C.W.M.	Gastric crisis	Morphine sulphate 1 gr.—antiluetic	**	10 gr. q. ½ h. p.r.n.	**
49.	F	61	C.W.M.	Headache	Allonal 5 tab.	***	30 gr.	*
50.	F	42	S.M.	Chronic headache	Aspirin 30 gr.	***	30 gr.	***
51.	M	62	S.F.M.	Occipital neuralgia	Allonal 5 a day	***	30 gr.	***
52.	F	33	A.W.N.	Migraine	Luminal 2¼ gr.	*	40 gr.	*
53.	M	77	H.E.N.	Occipital neuralgia	Neomagnephen 80 gr.	***	30 gr.	***
54.	F	17	M.N.	Menstrual headache	No previous medication	0	30 gr.	***
55.	M	65	E.N.	Headache	Nitroglycerine 1/80 b.i.d.	*	30 gr.	***
56.	F	29	S.N.	Grippe	None	0	30 gr.	***
57.	M	36	P.N.	Myalgia	None	0	30 gr.	***
58.	F	36	B.O.	Occipital neuralgia	Strontium salicylate 40 gr.	**	30 gr.	***

Case No.	Sex	Age	Initials	Diagnosis	Prior medication	Result	Magnepyrine medication	Result
59.	M	29	J.D.O.	Myalgia	Neomagnephen 100 gr.	*	60 gr.	**
60.	F	54	W.M.P.	Headache	Neomagnephen 80 gr.	**	30 gr.	***
61.	F	12	E.P.	True epilepsy and headache	Luminal 1 1/4 gr.	**	20 gr.	***
62.	M	55	A.P.	Gastric crisis	Allonal 12 tab.—antiluetic	***	30 gr.	***
63.	F	41	W.P.	Gastric crisis	Antiluetic	0	30 gr.	***
64.	F	31	W.R.R.	Intercostal neuralgia	Neomagnephen 85 gr.	***	30 gr.	***
65.	F	40	W.P.R.	Neuralgia	Aspirin—antiluetic?	0	30 gr.	***
66.	M	70	D.R.	Tabetic pachymeningitis	Aspirin 100 gr.	**	30 gr.	*
67.	F	53	R.R.	Peritonsillar abscess	None	0	30 gr.	*
68.	M	57	J.B.R.	Chronic headache	Aspirin?	*	30 gr.	***
69.	F	65	E.A.R.	Focal infection	No previous medication	0	15 gr.	***
70.	M	32	E.H.S.	Neuritis	Neomagnephen 750 gr. daily	***	30 gr.	***
71.	F	45	I.S.	Headache	Magnespilin 30 gr.	**	30 gr.	***
72.	M	51	E.W.S.	Intercostal neuralgia	Neomagnephen 65 gr.	***	30 gr.	***
73.	F	50	F.S.	Tic Douloureux	Various	0	30 gr.	***
74.	F	45	E.S.	Chronic headache	Salol & phenacetin aa 15 gr.	**	30 gr.	***
75.	M	20	D.S.	Headache	Various	0	30 gr.	***
76.	F	52	M.S.	Grippe	Aspirin 30 gr.	**	30 gr.	***
77.	F	25	A.S.	Menstrual headache	Aspirin?	**	30 gr.	***
78.	M	54	R.S.	Gastric crisis	Aspirin 150 gr. a day	***	30 gr.	***
79.	F	63	A.S.	Meniere's disease	Neomagnephen 80 gr.	***	30 gr.	***
80.	F	44	H.T.	Chronic headache	Neomagnephen 90 gr.	**	30 gr.	***
81.	F	21	E.T.	Occipital neuralgia	Magnespilin 30 gr.	**	30 gr.	***
82.	F	40	H.M.T.	Headache	Aspirin?	**	30 gr.	***
83.	M	43	H.M.T.	Grippe	Neomagnephen 90 gr.	***	30 gr.	***
84.	F	59	M.A.T.	Headache	Aspirin 100 gr.	***	30 gr.	***
85.	M	51	A.W.V.	Intermittent headache	None	0	30 gr.	**
86.	M	50	J.D.V.	Headache	Aspirin 50 gr.	***	30 gr.	***
87.	F	30	E.V.V.	Grippe	Aspirin 150 gr.	***	30 gr.	***
88.	F	53	E.V.	Occipital headache	Aspirin 150 gr.	***	30 gr.	***
89.	F	33	H.V.C.	Tic Douloureux	Aspirin 150 gr.	***	30 gr.	***
90.	M	48	V.W.	Headache	Theominal 20 gr.	**	20 gr.	***
91.	F	25	H.W.	Pituitary headache	Glandular 30 gr.	0	30 gr.	***
92.	M	32	J.D.W.	Constant headache	Luminal 6 gr.	**	Addition of Magnepyrine 10 gr. p.r.n.	***
93.	M	69	H.W.	Headache	Allonal 4 tab.	**	30 gr.	**
94.	F	56	N.C.W.	Migraine	Aspirin 40 gr.	*	30 gr.	*
95.	M	49	W.T.W.	Occipital neuralgia	Neomagnephen 60 gr.	**	95 gr.	***
96.	F	26	W.W.	Headache	Aspirin 40 gr.	**	30 gr.	***
97.	F	20	N.W.	Endocrine headache	Endocrine	0	30 gr.	***
98.	F	21	L.W.	Luetic pachymeningitis	Cinchopyrine 50 gr.	***	30 gr.	***
99.	F	56	M.L.W.	Headache	Allonal 12 tab.	***	30 gr.	***
100.	M	41	S.W.W.	Occipital neuralgia	Strontium salicylate 50 gr.	***	30 gr.	***
101.	M	49	J.F.W.	Gastric crisis	Aspirin 120 gr.	**	30 gr.	***
102.	M	29	R.J.W.	Luetic headache	Antiluetic treatment	0	30 gr.	***
103.	M	39	J.M.W.	Spastic colitis	None	0	30 gr.	***
104.	F	30	E.Y.	Headache	Endocrine	0	30 gr.	***

KEY
0 = Unsatisfactory relief
* = Fair relief
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THE OTHER FELLOW*

JOSEPH M. KUDER, M.D.,

Mt. Holly, N. J.

In answer to the query—"what makes a profession?"—W. A. Shumaker, Editor of Law Notes, says: "If there is such a thing as a *profession*, as a concept distinct from a *vocation*, it must consist in the ideals which its members maintain, the dignity of character which they bring to the performance of their duties, and the austerity of the self-imposed ethical standards. To constitute a true profession there must be ethical traditions so potent as to bring into conformity members whose personal standards of conduct are at a lower level, and to have an elevating and ennobling effect on those members. A profession cannot be created by resolution nor become such over night. It requires many years for its development, and they must be years of self-denial, years when success by base means is scorned, years when no results bring honor except those free from the taint of unworthy methods."

For so long a period of time as medical men have banded themselves into societies, associations, or other groups of organized activity, it has been their lot to have been subjected to criticism—more often destructive than constructive; to have been sermonized on ethics and coöperation; to have been lectured on changing—and not always improved—technic; and to have been harangued and oft-times harassed as to their obligations to our great race.

Furthermore, it seems almost inevitable that this prerogative is the privilege, or the obligation—depending on the point of view—of the presiding officer on the occasion of his last appearance in an official capacity before the organization whose destinies he has directed during his term of office. Whether his speech evolves itself into a eulogy or into a diatribe depends perhaps upon the evaluation he places

on his own efforts, and perhaps to an equal extent upon the coöperation which he legitimately has a right to expect from the members of that organization, and which has either been accorded or denied him.

However, in this, my valedictory, I feel that in our association there is a great deal more to praise than to blame, and I have a sense of profound appreciation of whatever measure of good-will has been granted me in formulating the policies of our society in this the one hundred and first year of its venerable and worthy career. I shall retire from my office today with the thought that I was given far more than I deserved, and with the regret that I could not have given you more than I did.

I do not have the effrontery to impose upon you gentlemen a dissertation on some medical subject, for those of you who read can find such, expressed more eruditely, elsewhere. I do not have the presumption to inflict further upon you what I believe the future policies of this society should be, as these I have already elaborated; for with the conclusion of this paper my day is done, and my policies will either be perpetuated or else wither along the wayside in proportion and degree as the society finds them valuable.

Before leaving the rostrum, however, to resume my more fitting place among you, I wish to pass along a thought or two on fellowship and tolerance. Perchance I may sow the seed from which will spring a sweeter harmony of friendship, a kindlier feeling of brotherhood. It may be that I shall leave a thought which may guide you to a happier destiny in your own lives, as well as in your contacts with your fellow-beings. I am going to talk to you about—*The Other Fellow*—your *patient*, your *brother practitioner*, your *fellow-man*; for whilst our chief concern may be the alleviation of human suffering, nevertheless, I conceive it to be equally true that no physician has fulfilled his destiny in life, when he has merely mastered physiology, pathology and therapeutics.

I wish to speak to you first of that individual, distressed in body, depressed in spirit,

* (Presidential address to the Burlington County Medical Society, Nov. 11, 1931.)

harassed by doubts and fears, oft-times in greater anguish of mind than of body, and frequently destitute of worldly comfort and of the prospect of attaining it. I wish to speak to you of *your patient*, who directs his weary, and sometimes faltering, foot-steps to your door, seeking surcease from his pain, and sympathy in his misfortune.

Tolstoi says: "All happy families are more or less like one another; every unhappy family is unhappy in its own particular way." All happy persons are more or less alike. There is a psychology which, in general, is applicable to them all, but each distress is individual and unlike every other distress. It requires its own peculiar and particular psychology. There is no disease of the body which does not directly or indirectly deviate the mind from normalcy, and since normalcy is a condition associated with happy—or at least purposeful—functioning; it is obvious that a psychology applicable to a condition of well-being must be inapplicable to conditions or circumstances in maladjustment.

It is upon your ability to merge your sympathies with those more unfortunate in life than are you, and at the same time to retain your judgment, that your success as a physician—and what is greater—your value in your profession to humanity, depends. For the patient does not present himself as a pathologic freak for your admiration as a scientist; he seeks sympathy and relief as a suffering fellow-being.

It may be all right to incorporate into your own philosophy of life some of the principles of the Stoics; but, to the average patient, stoicism imparts but hollow cheerfulness, for as Anton Chekhov, the Russian novelist, says: "A creed which teaches indifference to the conveniences of life, and contempt for suffering, is quite incomprehensible to those for whom contempt for suffering would mean contempt for their own lives. All life is made up of feelings of hunger, cold, loss, insult, and a Hamlet-like terror of death; and life may be hated or wearied of, but never despised; and from the beginning of time, life has consisted

of sensibility to pain, and response to irritation."

When your patient's morale begins to weaken in the face of seemingly endless distress, with no vista of approaching relief to lighten the interval of suffering, remember that adversity is not without its many hopes and comforts, just as prosperity is not without its many trials and discomforts. Encourage him in the attitude that the virtue of adversity is fortitude, just as the virtue of prosperity is temperance.

As to charity, the Bible tells us, "Sell all thou hast, and give it to the poor, and follow me". But perhaps this may be interpreted to mean sell not all thou hast, except thou follow me, and unless you have a vocation in life in which you can do as much good with little means as with great; for, otherwise, in feeding the stream, you dry up the source. When your philanthropic instincts are all but stifled by the spectacle of the establishment of free clinics intended solely for the poor but frequently commandeered by persons totally undeserving of charity; when your training and accomplishments are exploited for the benefit of those who can remunerate you for your services, but who are pampered and pauperized through the machinations of medical politics or by inefficient clinic workers who are paid for their time and services, but who dictate the disposal of your time and talents; remember, under these almost intolerable conditions, that charity can never admit of excess, but only of misapplication. Portia says to Shylock:

"The quality of mercy is not strained,
It droppeth as 'he gentle rain from Heaven
Upon the place beneath: it is twice blessed:
It blesseth him that gives and him that takes:
Tis mightiest in the mightiest: it becomes
The throned monarch better than his crown:
His scepter shows the force of temporal power,
The attribute to awe and majesty,
Wherein doth sit the dread and fear of kings:
But mercy is above this sceptered sway;
It is enthroned in the hearts of kings:
It is an attribute to God Himself:
And earthly power doth then show likest God's
When mercy seasons justice."

Let this be your professional creed toward your patients: *Faith* in yourself and in your

profession; *Hope*, that sweet solace with which suffering humanity ever seeks to assuage its griefs; and *Charity*, which, dropping as the gentle rain from Heaven, turns the anguish of the needy into joy.

"And now abideth Faith, Hope and Charity—these three; but the greatest of these is Charity."

Secondly, I wish to speak to you of your brother practitioner, the man who, like you, has spent years of strenuous preparation for his life's work; the man who, like you, has been making, and who continues to make noteworthy sacrifices; the man who, like you, has wholesome aspirations. I feel that you should know more intimately the men who, like you, have banded themselves into the Burlington County Medical Society, to associate with other men like themselves, with the same ideals and the same aspirations. I think you should consider such association a privilege; for if it be not a privilege to associate with men who are following the same path that you are, then you are condemning your own vocation in life, and are discounting your own ideals and aspirations.

It is only through harmonious association that progress can be made, for you as an individual can only share in the same general strength or weakness of the organization of which you are a part. It is only being trite to remind you of the aphorism that there is nothing new under the sun. Plato says "All knowledge is but remembrance"; and Solomon says "All novelty is but oblivion". Yet, for practical purposes, there *are* things which are new. Whether they have arisen as hitherto undiscovered entities, or whether they merely appear in a new garb, resurrected from oblivion, is a matter for academic argumentation only. Ibsen says "Every created thing has *finis* written after it". Nothing is permanent. That which is useless is discarded, and that which is useful is evolved into a higher form of usefulness.

It is in these society meetings that innovations can best be appraised and evaluated from a pooling of our common experiences, and in

the process of evaluation it should be remembered that there is nothing new that does not—at least at first—do some wrong. Sir Francis Bacon, in his essay on "Innovations", says: "It is true that what is settled by custom, though it be not good, yet at least it is fit; and those things which have long gone together, are, as it were, confederate with themselves; whereas new things, piece not so well; but, though they help by their utility, yet they trouble by their inconformity. All this were true if time stood still, which contrarywise moveth so round that a stubborn retention of custom is as turbulent a thing as an innovation; and they that reverence too much old times are but a scorn to the new. It were good, therefore, that men in their innovations would follow the example of time itself, which innovateth greatly, but quietly, and by degrees scarce to be perceived. For, otherwise, whatsoever is new is unlooked for; and ever it helps some, and impairs others; and he that is helped takes it for a fortune and thanks the time; and he that is hurt takes it for a wrong and imputeth it to the author." In other words, as regards our attitude toward innovations in general, and toward medical procedures in particular, we should be evolutionary liberals rather than revolutionary radicals.

To mingle with your colleagues in these society meetings helps to eliminate many of the causes of dissension; for dissension is the child of misunderstanding, just as misunderstanding is the child of suspicion. Nothing makes a man suspect much, more than to know little; for knowledge and suspicion vary in inverse ratio with each other. The closer, therefore, our fraternal contacts are, the less will be misunderstanding, envy and suspicion.

Be generous in your professional contacts; be lenient with your colleague's faults; be appreciative of his virtues; for no man ever did himself harm in seeing the good in others. For, as Jens Jacobson, that almost incomparable of Scandinavian authors, says: "Thus it is that our nature grows with our knowledge and is molded and purified by it; and we should not be afraid of losing ourselves in

minds greater than our own, for it is as beautiful to learn as it is to live. We should not sit and brood uneasily over the peculiarities of our souls, or shut ourselves off from powerful influences for fear they may carry us away and drown our treasured individualities in their mighty flood; for the characteristic that is lost in the arrangement and remodeling of a vigorous development is only a blemish which has sprung up in the dark and is original only so long as it is sick and pale from want of light; and we must live by what is sound and healthy within us, for only that which is healthy becomes great." Pliny, the ancient Roman rhetorician, said: "In commending another you honor yourself; for he that you commend is either superior to you in that which you commend, or inferior. If he be your inferior, and you commend him, you being his superior, are worthy of much more commendation. If he be your superior, and you fail to commend him, you convict yourself of being unappreciative of his excellence, and are the less worthy of commendation yourself."

We should remember that virtue is nothing but inward beauty, just as beauty is nothing but outward virtue. The man who does a wrong begins mischief, but the man who returns a wrong makes mischief endless. Bacon, in another essay, says: "Certainly, in taking revenge, a man is but even with his enemy; but in passing it over, he is superior; for it is a prince's part to pardon. That which is past is gone and irrevocable, and wise men have enough to do with things present and to come. Therefore, they do but trifle with themselves, that labor in past matters."

Perhaps, when all is said and done, the most beautiful thing in life is friendship; for where friendship exists, all the offices of life are granted to a man and his deputy—his friend. Those things which a man cannot with propriety exercise himself, may perhaps be gracefully exercised through the medium of a friend.

As early as 1625, an English philosopher said: "A principal fruit of friendship is the ease and discharge of the fulness of the heart.

We know that diseases of stoppings and suffocations are the most dangerous in the body; and it is not much otherwise in the mind. You may take sarsaparilla to open the liver, steel to open the spleen, flower of sulphur for the lungs, castoreum for the brain; but no receipt openeth the heart but a true friend to whom you may impart your joys, griefs, fears and hopes in a kind of unofficial shrift or confession."

It is through this medium that our best thoughts are brought to fruition, for communicating them for the short space of an hour to a friend, clarifies them more completely in our own minds, than a whole day's meditation with one's self; for our own ideas are always infused with our own understanding and colored by our own personality, whereas the light which we receive from another is clearer and purer. There is no other such flatterer as a man's own self; as the liberty of a friend. It is perhaps impossible to acquire many sincere friendships, but barren indeed is the man's life which contains none, for a crowd is not company, and faces are but a gallery of pictures. Perfection of mutual regard is most closely attained when it exists "without respect of utility".

It would seem that in a group such as ours, composed of men with similar ideals and vocations, that close personal contacts should be more frequent and sincere; and I am sure that none of us would be the less happy or the more inefficient, if friendships among us were more frequently and more intensely cultivated.

One of the most beautiful illustrations of this that I know, exists in our own State Society. Two physicians, one of them a recent past-president, graduating together from medical school, determined that nothing should ever interfere with their friendship. During the 40 years or more which have since gone by, there has never been a Wednesday night that those 2 physicians have not dined together, and thus perpetuated their mutual regard. Charles Hanson Towne wrote a poem which he calls "Around the Corner":

"Around the corner I have a friend
In this great city that has no end;
Yet days go by and weeks rush on,

And before I know it a year is gone,
And I do not see my old friend's face;
For life is a swift and terrible race.
He knows I like him just as well
As in the days when I rang his bell
And he rang mine; we were younger then;
And now we are busy, tired men,
Tired with playing a foolish game;
Tired with trying to make a name.
'Tomorrow' I say, 'I will call on Jim,
Just to show that I am thinking of him'.
But tomorrow comes—and tomorrow goes,
And the distance between us grows and grows.
Around the corner—yet miles away—
Here's a telegram, sir, Jim died today'.
And that's what we get—and deserve in the end—
Around the corner—a vanished friend."

Thirdly, there is a personal contact with fellow-beings in general which is unavoidable, even should avoidance be desired. But, where there are human contacts there are human conflicts, for the desires of human beings overlap. President A. Lawrence Lowell, of Harvard University, some years ago, in a Baccalaureate sermon, said: "As you young men leave this University to take your places in the world and among your fellow-beings, and as you come into conflict and misunderstanding with those with whom you come into contact, when you see the error of other men's ways and ponder over the error of your own ways, be tolerant toward the others and take comfort to yourself, for men do not sin as much as they blunder. This thought revokes the old Mosaic law of an "eye for an eye, and a tooth for a tooth", in that it predicates education rather than retaliation as the solution for misunderstandings—for to blunder is to be ignorant.

In this age of rapid intercommunication and cosmopolitanism, the old time-honored policy of splendid isolation—whether national or individual—is speedily becoming a myth; and he is indeed wise who realizes that to be aloof is to be alone, for in this day and generation great things are more apt to be the product of coöperative than of individual effort. Therefore, take your place with your fellow-man. If you have something to share with him, it is the only circumstance under which he may participate. If you have nothing to share with him, perhaps he has something to share with you, and again it is the only circumstance under which you may participate. Aesop very aptly tells a story of the

fly which sat very complacently on the axle-tree of a chariot wheel and exclaimed: "My, what a dust do I raise!"

Gilbert K. Chesterton says: "I think there is something rather dangerous about standing on high places. I knew a man who began by worshiping with others before the altar, but who grew fond of high and lonely places to pray from. And learning to pray on hills and crags, he learned to look down on the world more than to look up at Heaven. And once, in one of those dizzy places where the whole world seemed to turn under him like a wheel, his brain turned also, and he fancied he was God. So that, though he was a good man, he committed a great crime. He thought it was given to him to judge the world and strike down the sinner. He would never have had such a thought if he had been kneeling with other men upon a floor, for Humility is the mother of giants. One sees great things from the valley; only small things from the peak."

Perhaps the acquisition of worldly goods sometimes motivates our actions too strongly. But at the end of every man's life, when his accomplishments are viewed in retrospection, we find that he has received from the world just about what he has been worth to it. Probably our greatest honorarium should consist in the consciousness of duty well performed, for services meritoriously and conscientiously rendered are commonly attended by a spontaneous remuneration roughly commensurate with the effort and value of our work. Our happiness should be found in the appreciation of what we have, rather than the desire for what we have not; for as a general rule we possess what we need.

Epictetus, the Greek slave who later became one of his country's great philosophers, says: "When we have been invited to a banquet, we take what is set before us; but if a guest should ask the host to set before him fish or sweet cakes, he would be considered to be an unreasonable fellow. But in the world, we ask the Gods for what they do not give; and we do this though the things are many which they have given. It were better, therefore, to create happiness from the things which are

given us, than to ask for that whose possession may make us unhappy. It is not poverty which produces sorrow, but desire; nor does wealth release us from fear, but the power of reason. If then you acquire this power of reasoning, you will neither desire wealth nor complain of poverty; for riches are but a temporary loan of fortune, but happiness comes from the will."

The man who possesses character and the respect of his fellow-man, also possesses definiteness of purpose, in that while he does not turn a deaf ear to constructive suggestion, neither does he follow the course of least resistance and court popularity at the expense of what he believes to be right. Nor, having once embarked upon such a venture, is he deterred by the disapproval of those whose mistaken or self-interest might lead them to prefer that he do otherwise. It was Polonius who said, to his son Laertes, "To thine own self be true, and it must follow as the night the day, thou canst not be false to any man".

Finally, the great Elizabethan essayist says: "The signs of goodness are 5: (1) *Courtesy*, for if a man be gracious and courteous to strangers, it shows he is a true citizen of the world; (2) *Compassion*, for if he be compassionate toward the affliction of others, it shows that his heart is like the noble tree that is wounded itself when it gives the balm; (3) *Placability*, for if he easily pardons and remits offences, it shows that his mind is planted above injuries; (4) *Thankfulness*, for if he be thankful for small benefits, it shows he weighs men's minds and not their trinkets; (5) *Self-Sacrifice*, for then he partakes of *Divinity* itself."

If this be the path we tread, let us continue; for then, with Abraham Lincoln, we

can all feel that "No man ever got lost on a straight road". And somewhere along this road, if you look sharply and attentively, you shall also see *Fortune*, for though she be blind, yet, she is not invisible.

To keep alive within ourselves a spirit of perpetual youth by the glory of achievements still to be attained; to gaze upon the wide expanse of a world parched for song, in which we have not fully reached our goal, and wherein we are not yet completely anticipated; where all is ours to gain, and we feel strong and confident as only those can feel who still bear most of their songs unsung within their breasts; to try to be good and to do what is right, rather than what happens to be pleasant—for in the end, what is right and what is happy are the same; to be unselfish and, whenever we can, to give a helping hand to others—for the world is full of suffering, and to alleviate it is the noblest end we may set before us; if we do these things, then our presence on this earth shall have been a benediction to others, and we shall not have lived in vain. And after the mid-day of our lives has passed, and when our sun has set, perchance the after-glow of our good deeds may cast a faint refulgence for a while upon this little world of ours, lighting the way for those who follow us, to a brighter and a fuller dawn.

And now, gentlemen, there remain but 2 things for me to do: first, to thank you for your coöperation and for the kindly tolerance you have shown toward my faults and shortcomings; and second, as I escort my successor to the chair which I have so inaptly occupied during the past year, to pledge him my support in the duties which he now assumes. Doctor Curtis, will you kindly grace the chair?

A THOUGHT ON STANDARDS

Not: "How did he die?"

But: "How did he live?"

Not: "What did he gain?"

But: "What did he give?"

These are the units

To measure the worth

Of a man as a man

Regardless of birth.

Not: "What was his station?"

But: "Had he a heart?"

And: "How did he play his God-given part?"

Was he ever ready

With words of good cheer

To bring back a smile,

To banish a tear?

Not: "What was his church?"

Nor: "What was his creed?"

But: "Had he befriended those really in need?"

Not: "What did the sketch in the newspaper say?"

But: "How many were sorry when he passed away?"

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NEW YEAR'S GREETING

From the President

JOHN F. HAGERTY, M.D.

Possibly never before has the customary New Year's greetings had the deep significance of those of the present year. To some, disheartened by the failures and disappointments of the past year, they may have made little impression or have been regarded as a meaningless formality; but to the great majority, chastened, perhaps, by bitter experiences, yet full of "the hope that springs eternal in the human breast", they were gladly received and they strengthened the resolution to strive with greater effort to help secure "peace and happiness and good will among men".

For all the unhappiness consequent upon the period of business depression and unemployment, physicians can very justly disclaim responsibility; and, while not entirely free from the ill effects thereof, they are, because of depending so largely upon their own initiative and efforts, less affected at present than the great majority of people. At the same time, the well-known charitable inclination of the medical profession toward those in need

has been maintained. In times like these it is a great satisfaction to hold membership in a guild noted for its altruism, and to realize that while statesmen and sages find it difficult or impossible to solve the economic problems of the world, scientific medicine is continuing its steady progress toward complete understanding of and mastery over the physical ills of mankind.

Coming from generalizations to a consideration of conditions nearer home, it may be said that the profession in our state of New Jersey was never better organized nor more heartily interested in all that concerns the welfare, in the broadest sense, of its members; and never have our state society members been more interested in the welfare of the people at large, or more willing to serve them faithfully and well. That this spirit may continue to activate each and every member and that all may find joy and satisfaction in their work throughout the coming year, is the sincere wish of the President of the Medical Society of New Jersey.

CONFERENCE OF COUNTY SOCIETY SECRETARIES

It has often been said, and we believe correctly, that any medical society is just about as good or or bad as its secretary; and that seems to apply with particular force to county organizations. In consequence, the Annual Conference of County Society Secretaries and Reporters affords an excellent opportunity to study the group of men who are in such great measure responsible for the status of our county organizations; and, especially to compare the relative status of the county societies with the relative characters of their secretaries.

Of all the events regularly taking place during each fiscal year of this State Society, none is of greater interest or import to our readers than this above mentioned Conference, and we heartily commend to you, for immediate reading, if you have not already read it, the proceedings of the Conference held in Trenton 2 months ago, as recorded in the December Journal, pages 956 to 970, both inclusive.

It is a pity that the attendance was so small; a fact difficult to explain, for the program prepared was excellent, and the date set for meeting had been known to all for a whole year. Those in attendance were unanimous in saying that it was the best conference we have held and that they had profited, and their respective societies would profit, greatly from their participation. However, every county should have been represented by at least 1 of its officers, and those societies which had no representation present must necessarily suffer from that fact. These conferences are provided, at the expense of the State Society, for the mutual benefit of all the component county societies, and any county society that does not actively participate will suffer a direct individual loss and will, to some extent, impair the full possible value of the conference to its associated county societies.

The program of the recent conference dealt with some of the most important problems now facing the profession and every member of this State Society should read the reported proceedings. Some of the subjects discussed will doubtless be presented for consideration by some of the county societies during this

winter, and advance knowledge of what is to be acted upon will enable you to prepare for personal action, and will profit the profession through decisions reached by intelligent action.

WRITING FOR THE JOURNAL

It is necessary, in the editing of any periodical, to set up a policy, embracing some rules of procedure, which will serve as a guide to literary contributors as well as the Editor in the preparation and the revising of manuscripts for publication. The policy should be clearly defined and the rules should be as few and as simple as possible; otherwise, especially in relation to the publishing of a medical journal, those who write for the journal, who are busy with their regular work, and with whom writing is only an occasional occupation, cannot be expected to remember and conform with the rules. So, at the commencement of our editorship, we adopted, as arbiters in the matter of spelling, the Standard Dictionary for general use and the Dorland Dictionary for medical scientific words.

At that time, in 1925, the fourteenth edition of Dorland was in use and it had introduced some new spellings which were at variance with previous custom; for instance, leaving off the terminal letter *e* in such words as: quinin, instead of quinine; morphin, instead of morphine; chlorid, instead of chloride. It took us a long time to grow accustomed to the new form of spelling, just as it did with the changes in use of diphthongs and hyphens.

Recently, it became necessary to purchase a new "Dorland" and when received—"the fifteenth edition"—we found, to our consternation, that in the spelling of such words as have been mentioned, the terminal letter *e* has been returned to its old position. Having established Dorland as our authority for the spelling of medical words, it follows, naturally, that we must again change our form of spelling.

In consequence, we direct your attention to this subject in order that your manuscripts may be prepared in conformity with Dorland, and that you may understand the Journal's change in spelling, which constitutes a change in usage of some words but is not a change of policy or authority. The change is on the part of the dictionary, not the Editor.

Special Article

TRAVEL TALK

A MEDIC IN THE TRANSATLANTIC YACHT RACE

Spencer T. Snedecor, M.D.,

Hackensack, N. J.

Ten yachts from 45 to 72 feet over-all left Newport for Plymouth, England, on the Fourth of July, 1931. On board the *Mistress*, a 60-foot schooner, I was given a berth as ship's surgeon by the owner and "skipper", George E. Roosevelt. Quickly, I found that the "ship's surgeon" belonged in the star-board watch and took his regular "trick" with the rest of the crew. Racing across the Atlantic, competing with 9 other little boats to see which could carry the most sail and weather the nastiest storms, to make landfall 3000 miles away, was an adventure that appealed strongly.

Most of our guest assembled at Newport on July 2 and joined in the farewell dinner with those from the other boats, at the Hotel Viking, that evening. Mr. Roosevelt had given months of thought to the preparation for this cruise and therefore we found our ship to be perfectly equipped and liberally stocked. Some crowding on board was, of course, necessary to accommodate 11 of us, an entire extra suit of sails, and provisions for 45 days. The *Mistress* had no auxiliary engine and for wireless only a receiving set. However, there were enough bunks, for we could not all sleep at any one time, even though one windward bunk never was used—because no one could stay in it. The forward stateroom was packed waist-high with sails, so that Captain Peterson, the professional captain, could barely crawl over to his bunk. Another stateroom amidships was filled 4 feet deep with coal, and on top of that cases and crates were piled to the deck. Food was stored under us, over us, and around us, in every corner. A chart had to be kept to locate where the beans or the kippered herrings were stowed. It was all packed so tightly and neatly at first, until on a night along about two-thirds of the way across, in a dead calm, a heavy ground swell caused things to move, and the cans rolled so wildly all night that neither watch got any sleep.

Our food was good, with some limitations. The bread became too mouldy to eat, after a week from base, but the eggs and apples kept well. We had no ice. Whatever meat couldn't be pried out of cans was kept in barrels of brine, quite the same as in the old whaling

days; one cask was up in the fore-castle and the other lashed to the mainmast on deck. To get a piece of salt pork ready to eat, i.e. to *de-salt* it, the steward soaked it for an entire day in sea-water, and then for another whole day in fresh water.

Of the crew, 3 were professionals and 8 were volunteers. George E. Roosevelt is a captain of large experience, for deep-sea sailing has been his hobby ever since his undergraduate days at Harvard when he obtained his master mariner's license. Navigating the schooner is the crest of his enjoyment and I believe there are few better navigators anywhere. C. Sherman Hoyt, a yachtsman of world-repute, was first-mate. Except for myself, the other members of the crew were all experienced in ocean racing.

The start of the race was a gala event for the Fourth of July. Nearly 300 craft, of all descriptions, were gathered out by the Bretton Reef Lightship to wave farewell, and with the "Skipper" at the wheel the *Mistress* maneuvered down to the starting line and was the first to cross. Immediately, we set our course east by south, took in the working jib and stay-sail, and broke out the balloon jib. I began at once to learn a few things about halyards and jibs. The air was light and in a few minutes we took down the fisherman staysail and fore-sail and hoisted the balloon-staysail, which is a huge sail strung between the 2 masts and bellying well out to leeward; we nicknamed it the "golwobbler". My log of the first night reads: "On watch 12 to 4 a. m. Cold. Glad to turn in." And the watches were 4 hours on and 4 hours off, until we dropped anchor in the harbor of Plymouth, England.

The next morning, July 5, we took our departure, and soon our last landmark, the Nantucket Lightship. The trip, at that moment, did seem a bit awesome; setting our easterly course for landfall 3000 miles away. As it turned out, we were never in any real danger except, possibly, from falling overboard. We chose the southern route in the hope of securing favoring wind and current in the Gulf Stream, but instead we ran into a week of calms and found no helping current.

In all, we did have 4 good blows, which carried us along our way some 220 miles on one day; and there were a number of exciting moments. Twice in a day, the spinnaker blew away, and for one whole day we did not dare attempt to take in the balloon jib. In a race, one doesn't take off canvas if it is possible to carry it; and we never reefed. The last 10 days of the trip developed fair winds but nasty weather. The nights were always wet. We lived in boots and oilskins; turning in wet and getting up wet. There was no

comfortable place to be found anywhere on deck at night.

After our record day's run into the English Channel, we lost our wind and many precious hours in the long run into Plymouth. Picking our way by Eddystone Light, we got our bearing on the harbor lights and passed the breakwater, which was the official end of the race, at 1 a. m.

Of course we were disappointed to find that we were the fourth boat in, but it was such a wonderful trip in every way that we hid our regrets. We had not seen any of the other boats before the third day out, and for that matter we were the only yacht not having been reported by some steamship.

After a few days in Plymouth, I went up to London and mixed some sight-seeing with visits to a number of the hospitals there.

By way of contrast, it took us 19 days and 9 hours to reach England, but we came back on the Europa in 4 days and 20 hours.

Medical Ethics

A CONTRIBUTION FROM THE PRESS

John Hammond Bradshaw, M.D., F.A.C.S.,
Orange, New Jersey

One is reminded, by the not infrequent finding of valuable information in the daily papers, that it is dangerous to neglect the press as a source of continued education. This is said in spite of the mass of drivel, crime, politics and inane gossip that clog one's way before the treasure is uncovered. Rightly read, the newspaper becomes a true source of education and even a school of ethics.

Preaching in the pulpit of St. Patrick's Cathedral, New York City, and quoted in the Herald Tribune not long since, Rev. John A. McClorey delivered a sermon that should be broadcast throughout the land.

"Christ never preached by word or example against dancing, singing, tobacco using, wine drinking, or winsomeness of beauty. He enacted no blue laws, But he did preach against hypocrites; against the blue-nosed purveyors of vinegar who are as bad as the red-nosed wine bibbers; against those who pride themselves on externals; against those who appear in sackcloth and ashes and have taken away the joys of life, smashing every bottle in order to lift up a low crust of society—while they, themselves, drink deep from well-stocked cellars at home."

Father McClorey said that Christ preached

against over-use, even of good things, however, and taught that happiness lay in self-conquest; and maintained that it is a mistake to annihilate passion, for passion is at the base of our being.

"God gave us passion—it cannot be destroyed; and, if it could, its destruction would not be desirable. For what is man without passion but a respectable mediocrity? Passion is a source of pain, but it is also a source of exquisite joy. It sends some to hell and some to heaven. We must keep it by all means, but send it along the road guided by wisdom and truth so that it will be pure and only a source of joy."

Economics

COUNTRY PRACTICE

F. L. Varney, M.D.,
Monson, Maine

(With the consent of the author, we are presenting our readers with this abstract of his Presidential Address to the Maine Medical Association, on June 26, 1931. Reading the original in the Maine Medical Journal, we were impressed by the excellence of Dr. Varney's presentation of a country doctor's life. He has made a keen analysis of the favorable and unfavorable aspects of a country practice, and we appreciate his gracious permission to pass his views along to the members of the Medical Society of New Jersey.—Ed.)

To me the disheartening thing about the whole matter of the country doctor and his predicament is—that so little can be done about it. When the young practitioner starts out in life he dreams of great accomplishments. The world is not all it should be and he feels certain of changing it. Very early, and very much to his surprise, he finds the world doesn't want to be changed; not even for the better. He sees no reason why people should not agree with him in his effort to help the world to health, but he finds people are selfish, unstable, shortsighted and thoughtless. He finds his services misused; there is wasted effort at every turn; there is great personal hardship and brainless criticism. With all his efforts, he falls far short of that effectiveness so important in the practice of medicine.

Health is the most precious of earthly blessings, public health the most valuable public utility, and the doctor the most important asset in the community. His profession is the finest in the world and the public ought to know it. The people should learn more of his life and training; of the important place

holds; of the large amount of unselfish work he does, without reward. To large numbers of people, medical service is unavailable because of their ignorance, prejudice or financial limitations. There can be no profitable practice of medicine, without enlightened public opinion.

Coupled with this ignorance, prejudice and stupidity of the public in general, are other objectionable features connected with country practice; such as long, cold winters, bad roads, increased expenses, decreasing income, poor nursing help, health-breaking work and worry, no suitable library or laboratory, no time or money for post-graduate study or other facilities for cultural or professional improvement.

In fancy, I hear many a discouraged medical Hamlet soliloquizing:

"To stay or not to stay, that is the question,
Whether 'tis nobler in the mind to suffer
The slings and arrows of this thankless place,
Or take up my outfit and leave town.
But a new location puzzles my will,
It gives me pause,
And makes me rather bear the ills I have
Than fly to others that I know not of."

If the despondent M.D. will take stock of his surroundings, he will, first of all, note the decadence of the countryside. The population is waning; those who stay, are poorer quality; the substantial old Puritan stock is disappearing; and it seems that economic and intellectual failures reign in their stead. As an illustration of this statement, a few years ago I visited what was once a picturesque old New England village, now falling into decay. The broad, shady streets seemed forsaken; the church looked dilapidated; and the stately academy building, from which many capable students had gone forth to Yale and Harvard, had outlived its usefulness and stood with closed doors. Foreigners were occupying colonial homes of our Revolutionary forefathers. The neighboring farms were being tilled by strangers ignorant of American customs and standards of living. Here in Maine, we frequently pass the abandoned farm or deserted hamlet where some industry, having used up the natural resources in the vicinity, has moved out, leaving empty houses to be tenanted by hedgehogs, or perhaps substandard people.

Our high schools and academies are contributing to decay of the country place by sorting out and sending away those capables who might be leaders; leaving behind the unambitious and unfortunate to become the dominant stock. Such folk have little to do with progress, except to hold it back. They

consume the doctor's time, cause him trouble and expense, appreciate his services very little, and are what the vulgar call "poor picking". I haven't heard the slogan—"Back to the land"—for years; neither do I see signs of ideals and culture returning to the countryside.

Looking further into this condition of things, we find in operation what social scientists are pleased to call *the urban-rural conflict*. It is that force—maelstrom, if you please—which is sucking the ambition and worthwhileness out of the country and pouring it into the city. This force, so long felt in industry, is working disaster to the medical profession in country districts. Everything is *city-centered*. The doctor's patients have developed a habit of going out of town for shopping or amusements, and to call on the distant doctor. *Many people start for hospitals for serious operations without the advice or diagnosis of any physician.* All this practice skims the cream from the local man's pitcher and leaves him bitter and resentful. His once profitable business has degenerated into little else than trips through storms, emergency calls, and night work.

With the advent of the automobile and improved roads, much to his disadvantage, the country doctor is brought into one-sided competition with the city man. Formerly, the rural physician had little competition from the outside; he earned a fair competence, and was one of the leading citizens. Now, struggling against such hardships and under such handicaps, the position he holds is becoming more precarious, until it seems there is little to do but follow his disloyal patients into the city.

Then, hospitals have, in no small measure, contributed to the decay of country practice. Formerly, the minor and much of the major surgery was successfully performed in the doctor's office or in the patient's home. Likewise, the doctor had all the maternity work. These valuable adjuncts to his income have practically disappeared; gone to the hospitals. We are not so foolish as to deny—that where the more technical methods of diagnosis and treatment are indicated—the hospital is the best place for their application. Country people understand this and are justified in incurring the extra expense, because they receive better nursing care, are free from household worries, and have ready access to skilled assistance in emergencies. There is too much hospitalization; and that fault should be corrected.

Another reason for the diminishing income of the country doctor is the fact that epidemics of communicable diseases are no longer

so prevalent as in the olden days. Diphtheria and typhoid are practically unknown in many localities; and, it is a peculiar state of mind that *this very freedom from pestilence encourages indifference, even antagonism, to health measures.* Blockheads never "see any use" in vaccination; because there is no smallpox. Schick tests, tetanus antitoxin, and many efforts at health betterment, meet with the same moronic objection. It takes salesmanship of a high order to sell anything as intangible as health measures to the unintelligent.

Thanks to high pressure salesmanship and the installment plan of payment, the average family is said to be \$250 in debt. The pay, check of those working has been reduced by one-half or two-thirds, and in many instances eliminated altogether. It never has been the habit of these people to insert an item in the family budget to take care of the expense incident to illness, so when misfortune befalls, they are plunged all the deeper into debt, with the result that the doctor's bill remains unpaid. A few years back, when they were earning more money than they knew what to do with, this class of people considered spending a real sport, and anything suggesting thrift a crime. During the years of plenty they acquired extravagant tastes and wasteful habits, only now to find themselves facing bankruptcy.

Having mentioned a few reasons for the decline of country practice, let us turn to the country doctor himself. It seems that no matter how competent or how resourceful he may be, there are always numbers of restless-minded who have an itching desire to try the other doctor. In rural districts, where everybody knows the business of everybody else, the practitioner, especially if he is a newcomer, cannot escape being sized up by the crowd as to his professional ability or lack of it. His shortcomings are ever held up to the world by busybodies and scandal-mongers. Does he drink, or gamble, or discuss his lady patients with loafers? There is talk of kicking him out of the community. He must command the respect of the better element, he must be up-to-date and resourceful, he must adapt himself to his surroundings; otherwise, God help him.

Dr. Augustus O. Thomas, former State Commissioner of Education, in addressing the graduating class at Nasson Institute the other day, said: "We are living in an age of progress in which constant readjustments must be made, and persons who cannot adjust themselves to the constant changes in industry, politics, views, creeds and religion, find themselves placed upon the scrap heap of humanity."

Here is where the newcomer may fall down.

Much of his superior training will be found utterly useless, much modern device and equipment—the crutches upon which he has been taught to lean—will have to be scrapped and the ambitious beginner start in to assiduously develop his 5 senses. He may tire and quit. Word goes out that he wasn't the right type for the community, and he wasn't. He didn't adapt himself to his surroundings.

The country doctor is in a bad way. His back is against the wall. He is at the mercy of an ignorant public, and an uninformed public is its own worst enemy. What shall be done about it? Shall we adopt the Canadian plan, where the doctor is employed and assured of his 3 square meals, and the community a physician? The doctor then becomes a servant to be hired or fired by those who may be unable to judge of his real ability or to understand his problems. The doctor's freedom to practice medicine with a disinterested scientific attitude may be forced to give way to cheap Babbitty.

I see no permanent solution except in the direction of general upbuilding of country intelligence for health, like the worth-while things of life, to be gained only by intelligent living. Could it be possible to get community leaders together in a program of education? The doctor, minister, high school principal, superintendent of schools—could not these work in cooperation with a group of selected citizens, it may be the school board, in the interests of higher and more healthful living? If only the entire countryside could unite its forces for this desirable end, but, unfortunately, this is more easily said than done, because of the lack of leaders. Coöperation in the country is more difficult to accomplish than in the city, for the nature of country life develops individualism rather than coöperation.

The case of the country doctor is not altogether hopeless, however, for there is a gold mine in many a locality in Maine for the medical engineer capable of extracting profit from low-grade ore. One doctor estimates from recent researches that his community is spending \$20,000 for health in the usual manner of the ignorant, in chasing quacks and cultists, in roaming about from one physician to another, in harmful self-medication with nostrums, and so on. Of this \$20,000 the doctor himself receives a mere tenth as his share. He is trying to increase his income by increasing his usefulness. Several rooms in his home have been converted into an attractive hospital, where the latest and best methods for the caring of patients are available. Not only is this home a small hospital, but it is a community center as well, where teachers

and others interested may come to confer on health problems or community betterment. Community spirit is being aroused and the public is being made aware of the worth of its country doctor.

Does rural practice pay? *Not in dollars and cents.* The income of the general practitioner does *not* represent a reasonable return on the cost of his education. Does it pay for personal satisfaction or in community uplift? These are questions for the doctor himself to answer.

Esthetics

AN OLD-FASHIONED, GOOD-FASHIONED WORD—CONTENTMENT

(From the Kalends, Williams and Wilkins Company.)

Was it not Tennyson who told us that, "Men may come and men may go, but I go on forever"? The "I" that the poet sang about was a brooklet. It had a reason for being and, no doubt, fulfilled that reason to the utmost. What Tennyson told us of the brooklet's ability to go on forever is equally true of critics; like the poor they are always with us. But they too serve a useful purpose when their criticisms are constructive, and thus justify their existence.

Unfortunately, during the past quarter century, the world has become afflicted with a plague of would-be, ultra-modern critics who criticise, deride, and sneer at everything that most decent people hold dear or even sacred. Much of such criticism is not criticism at all, but in reality is nothing but sneering; and, as Disraeli once asked, "Who can adequately answer a sneer?" And there's the rub! For as sneering is practically unanswerable, especially when it appears in public print, many of our so-called "critics" acquire a reputation for cleverness and wit to which they are in no wise entitled.

It has been said that, "Words go out of fashion, like clothes, and furniture and other things". Too true! But what does the loss of a mere word amount to? Much, if that word happens to be *contentment*. It was once a wholesome word and one that carried weight, but because of the pernicious activity of the ultra-modern critics, aided by *outré* movies, bizarre "true stories" from the radio, and tabloid newspapers, human contentment is in a fair way to become as extinct as the dodo.

Contentment does not, as our clever critics try to tell us, mean want of ambition or lack of desire to progress. In no sense does it mean "mental stagnation", a definition often used by the phrase mongers of the public press. The true meaning of contentment is the wise appreciation of the good things of life which we already possess, and which human experience has proved to be best for the greatest number.

It is often wondered whether the proneness to give an undue amount of consideration to half-baked criticisms has not caused far too many of us to yield to unbalanced preachments of social injustice. Injustice there may be, and undoubtedly is, but sneers and vituperations will never help to ameliorate it. Constructive criticism is needed for, through it, when wise, comes progress. Such criticism, however, will never come from the present scourge of professional literary buffoons who pose as critics.

No greater harm can befall us than that which comes through allowing ourselves to be robbed of the perception of the good in life which is within our grasp, and thereby cheating ourselves of all the manifold implications residing in that old-fashioned, good-fashioned word, *contentment*. When that word becomes meaningless to us then life holds little worth living for.

Collateral Reading

FADS, FRAUDS AND PHYSICIANS

By T. Swann Harding

Under the above title, and a sub-title of "Diagnosis and Treatment of the Doctor's Dilemma", we have another of those books written by laymen who think they can, better than the physicians themselves, tell how diseases should have been dealt with in the past and determine the proper course for medical practice to pursue in the future. It will do physicians no harm to read Mr. Harding's criticisms and suggestions—that much we will admit at once; in fact, we will go further and say that we feel it is in some measure a duty for every practicing physician to assume, and we hope that every member of this State Society and every member of our Woman's Auxiliary will read Harding's book carefully and prayerfully, for it is only by "seeing ourselves as others see us" that we can properly

realize our short-comings, decide what changes of conduct need to be made, and then take the necessary steps toward improvement.

Having noted some months ago that Dr. Fishbein, Editor of the Journal of the American Medical Association, had reviewed Harding's book for the Saturday Review of Literature (issue of March 28, 1931), and that in the same weekly Mr. Harding had published a response to some of Fishbein's strictures, we are reproducing here an abstract of his review as being probably of greater interest to you, our readers, than would be a review of our own making. So, the following abstract is presented, and we trust that many of you will be stimulated—by curiosity—to read the original review in full, and by personal interest, to read the book.

"Mr. Harding is convinced that a considerable number of physicians are incompetent. Again, he will find physicians generally agreeing with him. Incompetence in every profession in the United States is a by-word. It represents the youth of our civilization. Thirty years ago there were more medical schools in the United States than in all of the rest of the world. Today the number has been cut into less than one-half, and the standards have been raised to a point which insures a higher type of scientific physician. The physicians themselves brought about that reform.

Unfortunately, with the advance in medical science, an increase in the cost of medical care promptly followed. This was as logical as any step taken by mankind in any other development of human activities. When one improves his living conditions, one expects to pay more for the newer service. When one adds to the old-time routine of taking history and making a diagnosis on the history alone, the modern routine of laboratory diagnosis, x-ray pictures, cystoscopy, bronchoscopy, and other technical procedures, one must expect to pay more for the improved service. The rise in the quality of the practice of medicine has stimulated a vast amount of discussion of the cost of medical care. To this problem the medical profession is giving more attention than is being given by any other part of the population and the solution of the problem will probably come from the medical profession. It will necessitate savings where they can be made without lowering the quality of the service. The profession will probably resist to the last ditch any attempt to lower the cost of medical care by lowering the quality of service or by lowering the standards of the profession.

Mr. Harding sees the only answer to the

problem in complete control of medicine by the state. If such control had been demonstrated in numerous other countries, which have now been experimenting with state control for some 10 to 20 years, to be an adequate solution of the problem, the medical profession of this country would probably consent to a similar scheme. Actually, no other country has demonstrated the practicability of supplying high-class medical service under government control. The American medical profession is convinced that such service is not suitable to American conditions. Once established, Americans would not tolerate it any more than they tolerate prohibition. The state full-time salaried doctors would attend to the T. Swann Hardings and the intelligent, free-minded, and un-Babbitized would seek out independent physicians."

To the above, Mr. Harding answered by a letter to the Editor of the Saturday Review of Literature, in the course of which he said:

"My book visualized a new medical era to come into being gradually, perhaps over a century or so, and to be based securely upon physical, natural and enlightened social science. Dr. Fishbein is a reactionary who regards scientific progress with a jaundiced eye, whose economic doctrine is sound individualism, and whose duty to his guild overshadows his duty to the public. The British *Lancet*, a famous medical journal, reviewing Dr. Fishbein's recent book, "An Hour of Health", had this to say: "The prevention of heart disease is dealt with vaguely, and contains no reference to the method of direct attack on the incipient disease which has given such encouraging results in this country where, incidentally, the view accepted by the author that chronic tonsillar sepsis is a prime factor in the etiology of juvenile rheumatism has not been substantiated. The last chapter, entitled *Medicine in Our Changing World*, sets out the author's own views on various medico-political questions of the day. From many of these the English reader will dissent. With the truism that 'the sick human being demands individualization' the counter-disadvantages of team-work in the alleviation of human ills are rather lightly dismissed.

That he confesses himself shockingly uninformed about the success of state medicine in other lands is not surprising. But I am unwilling really to believe that the ignorance affected here is other than simulated, for I know Dr. Fishbein to be alert mentally as well as an entertaining stylist."

Lighthouse Observations

HUMAN LIFE HELD CHEAPLY

To what extent the World War, with its daily bulletin of casualties over a period of 4 years, may be held responsible for the existing low evaluation of a human life, we do not know; but, of one thing we are reasonably sure—that the price set upon life is today apparently much lower than it was prior to that cataclysm. We are not of those who attribute all unpleasant developments or deplorable changes to the World War, far-reaching as its evil consequences undoubtedly were, but, in this instance, the line of demarcation between high and low values does seem to correspond with that period of time, and it is a logical inference that the war killings—running into the millions for some of the nations involved—so deadened the senses of whole nations of people that the killing now, whether accidental or premeditated, of a single individual or of a small group of persons is scarcely noticed. The "average man" pays scant attention to the daily newspaper reports of the so-called "accidental deaths" beyond the point of reading the headlines in his favorite morning paper; going on to a reading of the entire story only when he is induced to proceed further by something in the heading—such as, the name of a friend, the site of the accident, or something of an unusual character about the incident. For instance, while engaged in writing the above, and waiting for breakfast to be served, our local morning paper was received and on the front page we read: "Heavy Life Toll in Nation Mars Holiday Fetes." This was in very heavy, "bold-face" type, while the next lines (sub-heading) in heavy, but somewhat smaller, black letters, proclaimed the information—"Midwest Heaviest Sufferer as Advent of New Year Claims 100 Victims".

The paper, we neglected to say, bore the date of January 2, 1932. The body of the news item, as we read further, presented the following details:

"Heavy holiday traffic tallied 100 victims and accidents associated with the nation's New Year day observance accounted for 40 more lives.

Highways of nearly every state and skyways of the midwest, alike, were charged with fatalities in the rising list of dead last night.

The midwest appeared to be the heaviest sufferer in traffic tragedies. In Illinois 9 persons, 6 of them children, were drowned as their car fell 22 feet into the Calumet River.

An airplane mishap brought death to 4 passengers at Springfield, Ohio. At Waterloo, in the same state, 3 men lost their lives when a cave where a party was being held collapsed.

Michigan counted 10 dead, 7 alone in the Detroit metropolitan area, as a consequence of traffic accidents which injured more than 100.

Auto-train collisions edged into the holiday picture, claiming 4 young people at a Philadelphia suburb.

In the midwest 2 died of accidental falls while celebrating, 1 of injuries in a fist fight; 2 were injured by stray bullets.

More than a dozen auto deaths were recorded in the south, 5 in Georgia alone. Rain-swept traffic arteries discouraged New Year's day driving in the east and held auto deaths there to less than a score."

We were not terribly shocked by that story, nor

did we expect to hear a single comment upon it during the day; for, after all, it was rather expected, because a similar report may now be read on the morning after any national holiday, as we are all now accustomed to linking with any American holiday a long list of casualties and fatalities.

If there is any one class of citizens shocked by and concerned about the large, and steadily increasing, number of deaths associated with our national celebrations, recreations and entertainments, it is that group generally designated as "the medical profession". That is, of course, quite natural, because the physician's attention is constantly centered upon matters of life and death; he is on the look-out for, and automatically notes, any change in mortality records; he quickly detects any new danger to life and, more quickly than others, begins to think of defense measures to safeguard the lives and prevent the needless destruction of human beings—no matter whether the destructive agencies, the factors that kill, be disease-producing microbes, uncontrolled machinery or unnecessarily dangerous elements in athletic games. It is, probably in most instances, the physician who first sees the sad results of dangerous procedures, partly because he is promptly called upon to care for and rehabilitate those who are injured; and as accidents and injuries of a new type increase in frequency, and especially when the number of persons injured or killed reaches an appalling figure, it is, very naturally, the physician who calls public attention to the dangerous condition, and who starts the process of considering a remedy. In other words, deaths, killings, accidents and injuries, regardless of causation, are peculiarly the concern of the medical profession and study of such matters is, for the physician, a problem "in line of duty".

So it was, that one year ago, on December 6, 1930, at a Tristate Medical Conference, held in Atlantic City, our voice was raised in protest against such mishandling of automobiles as is producing an ever-increasing number of persons being killed annually in these United States. We entitled our remarks—"Automobiles More Deadly Than War" (published in this Journal of February 1931)—and directed attention to the fact that during the calendar year of 1930, more than 32,000 American citizens had been killed in automobile accidents, and prophesied that approximately 35,000 others would be killed in like manner during the year 1931, calculating upon the basis that there had been since 1920 a regularly increasing number of such killings at the rate of 10% annually; and that prediction has just been verified.

In the last issue of this Journal, that of December 1931, we referred editorially to the astounding number of deaths resulting from *football accidents*—at that time, 29 deaths during the recent "season", which means during a period of less than 3 months. Our figures were accurate at the time that editorial was written, but ere the season ended the number of football killings had reached the number of 43, and may yet total 50 or thereabout, as several seriously injured players are hovering between life and death.

At the moment we spoke, December 5, 1931, we feared that ours would be "as a voice howling in the wilderness" and that the thousands who swell the gate receipts and yell themselves hoarse at any particularly brutal field play, if only it be spectacular, would offer us a dose of the sort that one college "gang" of football enthusiasts threatened to give the editor of a college paper if he dared to publish any criticism of their team. It

happens, however, that we spoke at the right moment; spoke at a moment when the brutality of the game had surpassed any reasonable excuse or explanation; spoke at a moment when sanity and reason were awaiting a voice courageous enough to denounce the brutality, the inhumanity, of a game which, innocent enough in itself, had been transformed from a friendly contest in the nature of a healthy, amateur, athletic exercise, into a vicious, gladiatorial combat, which would certainly result occasionally in the death of one or more of the contestants.

To our surprise, our daily mail has been materially increased by letters from all over the country, and our attention has been called to a considerable number of newspaper reports and magazine articles bearing upon the subject, and all but 2 of the personal letters have expressed commendation or hearty approval of our action, or urged further efforts in the direction of correcting a situation that has become serious.

We were reported in some of the papers as advocating abolition of the game—football—but that, of course, was not true. As a matter of fact, we offered no recommendations, no suggestions whatsoever, as to what could or should be done to put an end to, or at least diminish, such dangerous performances. Football can be played as a game with plenty of excitement for the players and a sufficient number of "thrills" for the onlookers, without the risks that now attend many of the spectacular contests staged by or for college teams. There is no necessity for suppressing the game in order to get rid of its life-endangering features. It should be possible, easily one would think, to eliminate the hazardous features by changing the rules or by placing some special restrictions upon the players. That the game is today too frequently conducted in the manner of warfare rather than athletics, and that many unethical and highly objectionable factors have become attached to college football, cannot be successfully denied, as we will show by quoting from some of the facts recently published.

In our personal opinion the main trouble with football at present is to be found in the fact that it has become *thoroughly commercialized*. Many, if not most, of the "stars" on college teams during the past 10 or more years have not been, really, honestly, properly registered college students; they have been primarily, *athletes* entered as *students* in order to secure their muscle and brawn for the team. That is, perhaps, the first bit of dishonesty in the game, for it is not true sportsmanship, and it deprives the team of any right to play as amateurs. Next to be considered is the enormous sum of money handled in connection with the "big games". We doubt the possibility of any game capable of piling up gate receipts to the extent of millions of dollars in the course of 2 months in each year, remaining honest. The temptation is too great.

The following quotations from students, coaches and others familiar with details of the game, will give a more comprehensive survey of the present situation than we can provide from our own knowledge.

Comments on College Football

From the New York Times of Sunday, December 13, 1931, we note that Reed Harris, Editor of the Columbia Spectator, said:

Through a gradual process of infiltration, the football system as it now stands has been soaked

into the American consciousness so thoroughly that only enlightened and radical steps can save the game from complete disintegration. Commercialism in football has reached a high point, in spite of the work of the Carnegie Foundation and other well-meaning organizations.

Fatalities in football, so alarmingly numerous this year, are but the result of a feeling among the coaches—supported by misguided alumni, paid publicity men and spectacle-loving crowds of the general public, and instilled in the players—that winning a game is akin to achieving immortality.

In the New York Times of Sunday, December 27, 1931, there was a letter, signed by a correspondent evidently familiar with football and similar games, in the course of which some reasons were given explanatory of the fatalities resulting from the violence of the game; reasons which completely dispose of the defense statements made by players, to the effect that the accidents and fatalities of football are only the results of hazards pertaining to any athletic event. Comparing football with rugby, the letter writer gave his reasons as follows:

Reason No. 1. I submit lies in the fact of premeditation, and the absence thereof. Every attacking move in the collegiate game is *premeditated*. The attackers, of course, mask their intentions, since surprise is essential to quick success. As the attack need not be evenly distributed, what happens? Somebody in the defending line—and he may not stand alone in this respect—gets hit by 2 opponents who have considered just how they were going to do it.

Now it is difficult to imagine anything in football so potent to harm as a *premeditated assault carried through*—especially if a single individual be the recipient of attentions from 2 or more opponents who have selected, in advance, the soft parts of his anatomy at which to rush. And surely no mitigation is to be expected when the assailants are acting upon advice such as this: "The offensive lineman wishing to force his opponent back should *drive his head directly into the opponent's stomach* * * * carrying his body into his opponent with short powerful steps * * * with his eye on the thigh of the opponent he can see where he is going." (Zupke, in Football.)

In rugby one may be contacted heavily by 2 or more, men at one time, but their moves will not have been premeditated. And this element of chance would seem to make all the difference, in most cases, between the infliction of serious injury and mere shaking up.

Reason No. 2. I submit, is the stress laid by coaches in America on the business of playing hard, which seems to be altogether exaggerated; and youthful enthusiasts are surely unnecessarily primed, equipped and "pointed" to accomplish hurt when they are schooled in such lore as follows: "A defensive lineman if he is a fast starter, a low crouching fighter, with his feet continually under him, can, after some practice, handle his opponent as a good baggage smasher handles a trunk." or "If the opponent releases himself the offensive lineman should immediately shove his side or hip into him and try to pinch the opponent's leg between, let us say, his own left leg and left arm-pit", or "The blocker should run as closely to his

intended victim as possible so that the hip can be thrown with force into the opponent's lap or thigh". (Zuppke, in Football.) And, as *pièce de résistance*, so to speak, "Slap him with the hip and with the head and shoulders in the stomach if possible". (Rockne, in Coaching.)

The capability for harm in the combination of premeditation and the essence of teaching such as this is surely delineated clearly in the incident herewith recorded: "In carrying out this principle of observing the defensive team's peculiarities, Rockne's quarterbacks were on the alert to notice physical weakness in the opposition. A case in point is the Navy game of 1929. We had been going right along over left tackle. When we were about midfield, needing a matter of inches for a first down, I noticed that the Navy's left tackle was groggy. On fourth down, in midfield, even with that short distance to go, that matter of inches, the thing to do, 99 times out of 100, would be to kick. Normally, you would note the weakness and keep it in mind for a goal-line drive. But, with the replacement warming up it was a cinch that the groggy tackle wasn't going to be around when and if we reached the Navy goal-line. So, I called the play over him again instead of kicking." (Frank Carideo, in "Rockne's Quarterbacks", The Saturday Evening Post, Nov. 14, 1931.)

We have already expressed the opinion that some of the football deaths this season deserve to be considered as *murder* rather than accidental killings. In one particularly vicious game, 3 of one team's key-men, the "star" and the 2 substitutes who, in turn, tried to fill his position, were subjected to the same vicious attack and to the same resultant injury save that he died and his successors narrowly escaped death—at least they are still alive, though one will, it is believed, be paralyzed on one side of his body for the rest of his life. The attack, of brutal character, having been not only premeditated but carefully designed to put them out of the game. As one can see in the instructions to players quoted above, the attack is planned to "get" the opponent, to disable him so that he cannot continue in the game; in other words, *to kill him a little bit*—not entirely. No one supposes that the Coach instructed his boys to murder their man—not completely—but it is difficult to control the results of a play with such nicety as to break a man's neck enough to send him to the hospital but not quite enough to send him to the cemetery; and a complete killing is bound to occur occasionally in efforts to effect injuries just short of death.

What can we, as physicians, do about it? We can, at least, inform the public of the dangers of the game when played as it is now being played; can inform the Directors, Trustees and Faculties of Universities and Colleges of such dangers and remind them that responsibility for some of the football deaths and injuries of serious character may appropriately be charged in part against them; and, through widespread dissemination of our professional opinions concerning the dangers necessarily attendant upon the game as now played, may save a few lives even if we do not succeed in forcing removal of the hazardous features that have caused so many deaths.

Current Events

WELFARE COMMITTEE MEETING

In accordance with a call, duly issued by the Executive Secretary under authorization of the President of the Medical Society of New Jersey, Dr. John F. Hagerty, the Welfare Committee met at the Stacy-Trent Hotel, Trenton, Sunday, December 13, 1931. The meeting was called to order at 3:15 p. m., by President Hagerty, who thanked those present for having accepted his appointments to the Committee, and then asked for nominations, precedent to the election of a Chairman for the Committee.

Dr. Londrigan nominated for that position Dr. A. Haines Lippincott, of Camden. The nomination was seconded by a chorus of voices from all parts of the room, and that was followed by the unanimous election of Dr. Lippincott.

Accepting the election, Dr. Lippincott expressed his appreciation of the honor of a second reelection, and the hope that the Committee would continue its good record of work performed.

Upon roll call, the following named members responded: Drs. Bloom, Brown, Clayton, A. H. Coleman, Conaway, Dandois, Davis, Donohoe, Green, Hagerty, Haggerty, Haussling, Larkey, Lee, Lippincott, Londrigan, McBride, McMahon, Meigh, Morrill, Morrison, Mulford, Nafey, North, Schaufler, Schlichter, Sewall, Sommer, Tracy and Ward. Present by invitation: Drs. Mccray, Quigley, Ely and McGuire.

The Executive Secretary, at the request of the Chairman, presented his report, as follows:

EXECUTIVE SECRETARY'S REPORT TO THE WELFARE COMMITTEE

Trenton, New Jersey
December 13, 1931

It is a pleasure to report once again that the work of the Society has proceeded very satisfactorily throughout the interval between the Annual Convention of the State Society and this autumnal opening of the new fiscal year.

(1) *Journal*. We believe the Journal is giving satisfaction, and one of our chief difficulties at the present time is to find space for all of the good material being offered for publication.

(2) *Educational program*. Our educational program, constructed during the summer months, was taken up actively on the first of September, and the Field Secretary is conducting a really staggering amount of work for one person. The State Department of Public Instruction is again endorsing, for the third season, the contribution of a health educational program sponsored by the Medical Society and presented to the laity through school channels. During the month of November, for instance, the Field Secretary filled 51 lecture engagements, embracing a total audience of approximately 11,000 persons, and our office has already received, from some of the schools and parent-teacher organizations, letters of appreciation, accompanied by requests that they shall be included in any future itinerary.

Mrs. Taneyhill is offering this year 6 specified lectures, besides a series of short talks utilized in conferences with organizations interested in particular campaigns of their own. The 6 topics mentioned above are: "The Story of Toxin-Antitoxin"; "Your Heritage" (a general health talk); "The Life and Work of Pasteur"; "Mental Hygiene";

"The Common Cold"; "Medical Quackery and Nos-trums".

Each of those lectures is treated as a health message from the State Medical Society, and each is written around the central idea of advising the public to consult the family doctor in all matters pertaining to health or disease. This program constitutes, we believe, the best form of professional advertising that can be utilized without criticism.

Radio. That portion of our educational campaign which is covered by radio talks has again been entrusted to the county societies; Atlantic, Bergen and Monmouth having entered upon the third year of their broadcasting; and Essex County having arranged for its Auxiliary to handle a similar program in conjunction with a special committee from the society.

(3) *Secretaries' Conference.* The seventh Annual Conference of County Society Secretaries and Reporters was held on November 4 and presented perhaps the best program as yet produced by that group; the complete report of the papers and discussions will be found in the December Journal.

(4) *Tristate Conference.* On December 5, the nineteenth Tristate Medical Conference was held in Atlantic City, and the program was again an attractive one and one about which you will probably hear more in the near future, because some of the topics discussed at that session will be presented to this committee for consideration and possibly for action. The chief subject considered was the plan submitted by Dr. E. G. Waters, of Jersey City, concerning the qualifications of specialists and their certification to the public, which was presented at the Annual Meeting of the State Society and referred for detailed consideration to this committee. The Conference report will be published in the February Journal, but I think President Hagerty may want to speak of that matter here today.

(5) *Primers.* You will doubtless recall that this committee has, during the past 5 years, sponsored the publication of 3 booklets which we have classed under the general name of "Primers": (1) The Relation of the Physician to the Public; (2) Guidance of the Woman's Auxiliary; (3) Dr. Morrison's answer to the question—"Does Membership in the State Society Pay?" Of the last mentioned Primer, having increased the original order, we have a goodly number still on hand. The Auxiliary Primer supply is exhausted, and we still have on hand a few hundred copies of number 1. The demand for copies of number 1 has recently taken a sudden spurt in the nature of requests from other states, and during the past month we have distributed nearly 1000 copies. Ever since the A. M. A. Convention in Philadelphia, we have been receiving requests for the Auxiliary Primer, which we could not fill, and the question has arisen as to whether we should prepare another edition. It is gratifying, of course, that these requests have come from State Medical Societies all over the country, even from the extreme western side, California. We have answered requests that could not be filled by saying that other state societies were granted the privilege of using that Primer in whole or in part and could print it for themselves, but in view of the appreciation that has been shown by the officers of other societies, and the state auxiliaries attached to those societies, we are wondering whether it might not be a profitable investment to order another supply for national distribution; inasmuch as such action would place this organization in a very flattering relationship to other state societies.

(6) *Referred matters.* At the Annual Meeting of the State Society, several resolutions were specifically referred to the Welfare Committee for consideration: The first question is whether the time is opportune for requesting an amendment to the Hospital Lien Law to "cover in" physicians and nurses; a question which Dr. Londrigan has been requested to submit today. (2) Next, is the question whether the time is opportune to seek amendment to the Medical Practice Act, or possibly to some other law relating to education which would provide a Grievance Committee similar to that in the New York State law. (3) Thirdly, this Committee is requested to study the plan presented by Dr. Waters for regulation of specialism and the qualifications of specialists. (4) There is one other subject, having possibly a legislative bearing, which we ought to mention—namely, the Workman's Compensation Law—but the House of Delegates referred that to a special committee, and the President has appointed a committee under the chairmanship of Dr. Sommer, which committee is now giving the matter full consideration.

Other matters referred by the House of Delegates to special committees are now being studied by committees which Dr. Hagerty appointed and they would seem to require no further mention at the present time.

We have just received, under date of December 7, a communication from Dr. D. Leo Hagerty, accompanied by a bill for \$25 to cover his subscription last year to the New Jersey Legislative News, when he was acting at Trenton as an observer of legislative matters for the State Society.

We are also in receipt of a communication from the Crippled Children's Commission, requesting the support of, and coöperation in, the Commission's plans for dealing with conditions affecting those who suffered in recent epidemics of poliomyelitis, and we have informed that Commission that the State Society will be glad to confer with the Chairman or other members of the Commission at any time, and hopes to be kept informed at all times concerning the plans and actions of the Commission.

Respectfully submitted,

Henry O. Reik, M.D.,
Secretary.

Upon motion of Dr. Schauffler, the report was accepted and its recommendations and suggestions were taken up separately for consideration.

With reference to the Primers, an additional printing was authorized, to be published and issued in the discretion of the Executive Secretary.

With reference to amendment of the Hospital Lien Law, Dr. Londrigan explained some of the conditions growing out of that law and, in his opinion, requiring amendment.

Upon motion of Dr. Sommer, Dr. Londrigan's recommendations were concurred in and he was requested to have the desired amendments to the existing law prepared for submission to the General Assembly.

President Hagerty presented, for consideration by this Committee, the plan presented to the State Medical Society, in June, by Dr. E. G. Waters, for the regulation of specialism and specialists, and expressed a wish to have continued the special committee of which he was Chairman, including Drs. Schauffler and J. G. Coleman, to study this and other plans proposed for qualifying and certifying specialists.

Upon motion of Dr. Londrigan, seconded by Dr. Sommer, Dr. Hagerty's request was granted.

The Executive Secretary presented, on behalf of Dr. D. Leo Haggerty, a bill of \$25 for last year's subscription to the New Jersey Legislative News, and payment of the bill was authorized.

The Executive Secretary directed attention to his recommendation that the Director of Public Health, Dr. Jesse L. Mahaffey, be regularly invited to attend the meetings of the Welfare Committee, and upon motion of Dr. Mulford, duly seconded, that recommendation was unanimously adopted.

Dr. Mulford asked whether it might be advisable to invite regularly to the Welfare Committee meetings those members of the Legislature who are practicing physicians, but after some discussion that question was decided in the negative.

President Haggerty suggested the advisability of having a special committee, composed of Drs. McCray, Chairman; Lippincott, North, Haggerty and Scammell, appointed as a Public Relations Committee, for the special purpose of keeping constant watch over legislative affairs, and that suggestion was unanimously adopted.

Under the head of new business, Dr. Londrigan stated that the Executive Committee of the Hudson County Medical Society had, at a recent meeting, determined to ask the Welfare Committee whether or not it might be opportune to seek enactment of a law, as an amendment to the Medical Practice Act, similar to the act of several years ago, known as Senate Bill Number 81, and having for its purpose protection of the doctor's title; making use of that title *prima facie* evidence of holding one's self out as a practitioner of medicine.

Dr. Quigley made a statement, reminding members of the efforts several years ago to secure that particular legislation, and reported information which he had received concerning the value of that law in the state of New York.

The general question of amending the Medical Practice Act, with special reference to such features as the title, the preliminary educational requirements, the licensing of cultists, and the desirability of a Grievance Committee, was further discussed by Drs. Quigley, Davis, McGuire, Morrison, Larkey, Haggerty and McBride, after which Dr. Morrison moved the appointment of a special committee to consider these matters with a view to seeking their inclusion in the Medical Practice Act as amendments; and his motion was adopted. The Chairman appointed, as members of that committee, Drs. McBride, Chairman; Haggerty, Sommer, Lee, and Dandois.

Dr. D. Leo Haggerty reported the recent receipt of a letter wherein a nose and throat specialist, practicing in New York, offered his services to the New Jersey State Police without charge, and asked if that might not be a topic for submission to the New York State Society's Grievance Committee.

Dr. Morrison expressed the belief that it was, and the Chairman requested Dr. Haggerty to take that action.

Dr. McGuire reported some difficulties growing out of the lack of a definition for the words *chiroprody* or *chiroprapist* in the existing law, and suggested the need for some action upon that matter.

The Executive Secretary asked the Committee to consider the advisability of changing the usual hour for Welfare Committee meetings from 3 p. m. to 2 p. m., and the Committee adopted a motion to that effect.

The meeting then adjourned.

Henry O. Reik, M.D.,
Secretary.

School Health Department

EXCERPTS OF INTEREST

Allen G. Ireland, M.D.

Director of Physical and Health Education, State Department of Education, Trenton, N. J.

"Dr. M. Levitan, School Medical Supervisor at Rome, New York, has conducted a very successful campaign of health education, through the local press, health exhibits, leaflets and other means. He found it of great assistance, through the resulting greater parental and public interest in the health service in schools. Write to him for further particulars."

(From the "School Physician's Bulletin" of December 1931.)

"Dr. Claude D. Phelps, School Physician at West Haven, Connecticut, has developed in his school an effective system for 'mosquito extermination'. He has issued an interesting Bulletin on the subject which can be obtained by a written request. It emphasizes the necessity of a well-conducted *Clean-Up Week*, to be followed by destruction of breeding places. During his last campaign, 1292 pupils destroyed breeding places in their home yards."

(From the "School Physician's Bulletin" of December 1931.)

"Our special pamphlet of *Individual Exercises for Special Cases* has appropriate exercises for most of the ailments mentioned in requests for excuse from exercises. As a consequence, we now seldom receive a letter stating that *no exercises of any kind are to be permitted*. When, however, a request of this kind is received, the excuse is valid for 1 month only. After expiration of such time a conference is held to investigate the case, and the conferees are: The principal of the school, the school medical inspector, the head of the department of physical education, and the family physician. Whatever the majority at this conference decides, relative to exercises that the pupil should be required to perform, is accepted as fulfilling the requirements of The Board of Public Education in granting credits in physical education necessary for graduation from high schools."

(From the annual report of the Superintendent of Schools of Philadelphia, 1930.)

"Naturally, such a radical departure from a position that had honored *Excused from Gymnastics* requests caused much comment. It is gratifying, however, to state that the majority of physicians coöperated with the division and used its pamphlet of individual exercises in prescribing the work that their patients could do. This procedure has greatly reduced the number of pupils who are too phlegmatic or too lazy to take part in the regular classwork and who, in consequence, pester family physicians for 'excuse notes.'"

In order to obtain a technic for vision testing of school children that will produce comparable findings, the National Society for the Prevention of Blindness made a study of existing charts and methods. After studying the visual conditions of more than 1000 little children, and having the findings checked by authorities in the field of sight conservation, the following points in testing for visual acuity were agreed upon:

- (1) Test charts drawn to the Snellen scale are most satisfactory.
- (2) The chart should be hung with the 20-foot line approximately on a level with the child's eyes, and directly in front of him.
- (3) The chart should be lighted with a sufficient amount of light without glare. There should be not less than 10 foot candles evenly distributed over the chart.
- (4) A measured distance of 20 feet should exist between the chart and the child.
- (5) Each child should be given an individual test.
- (6) The eyes of each child should be tested one at a time, using a small card for covering the eyes alternately.
- (7) The findings should be accurately recorded in a manner that will be comparable from year to year: thus, using a fraction, the numerator of which will indicate the number of feet at which the child stands away from the chart in order to read a selected line, and the denominator representing the line on the Snellen chart that he read satisfactorily at that distance.
- (8) An inspection should be made of the appearance of the eye in order to determine possible deviations from normal.

Communications

THE GENESIS OF SOCIAL INSURANCE

Edward H. Ochsner, M.D.,
Chicago, Illinois

(The Editor recently received from Dr. Ochsner the following letter—reproduced in part only—and an accompanying brief article on the origin and development of national health insurance, commonly called *State Medicine*. The letter explains, probably sufficiently well, Dr. Ochsner's object; and, the Editor, believing that the Journal's readers will welcome any trustworthy information bearing upon this question, has accepted the first article in the hope that those to follow will shed more light upon an interesting problem, which at present is but poorly understood by the majority of practitioners—but which is of vital import to all physicians.)

DR. OCHSNER'S LETTER

Dear Dr. Reik:

For a number of years I have been convinced that *social insurance* is one of the most important problems confronting the civilized nations, and that *compulsory health insurance* is the biggest quasi-medical question now before the medical profession of this country. Acting on this belief, I have prepared 6 short articles which consider the problem from the point of view of its political and economic effects upon society in general. If these articles are well received, I intend to write 6 more, the material for which I have already collected. The later articles will consider the effects of such legislation upon medical practice. My plan is to release for publication one article each month to all of the State Medical Society Journals. Of course, publishing one or more of the first letters of the series mentioned does not obligate you to publish subsequent articles.

(Signed) Edward H. Ochsner, M.D.

Social Insurance is the hybrid offspring of impracticable sentimentalism and political expediency. It is an epidemic disease, first observed in Ger-

many about 50 years ago, which has gradually spread and infected a considerable number of the nations of the earth and now has arrived at our doors. Unless we succeed in establishing a rigorous quarantine of enlightened public opinion, it will surely gain a foothold in this country in the not distant future.

Social Insurance consists of the following subdivisions or parts: Compulsory health insurance, old age pensions, and unemployment pensions or "doles". In none of the countries were they all adopted at the same time. Germany adopted compulsory health insurance in 1883, and all of the other forms since that time. Austria adopted compulsory health insurance in 1888; Hungary, in 1891. England adopted old age pensions first and compulsory health insurance in 1911, and the others subsequently. In this country, some of the states have adopted old age pensions, but so far none has adopted compulsory health insurance—for which negative blessing let us raise our voices in thanksgiving.

When the scientific physician is confronted with the problems presented by a new patient, he meets the situation in the following manner: He obtains a complete family and personal history, in order to ascertain, if possible, the causes which have brought about the condition; by his physical examination and laboratory investigations, he finds out what variations from normal have taken place; after all this, he is in a position to advise and institute the proper treatment. Let us follow the same course in the study of this problem.

During the late seventies, a number of German *parlor socialists* conceived the idea that the state should make itself responsible for the medical care of its workers. The sentiment in favor of compulsory health insurance grew rapidly among the workers, and Bismarck, although expressing serious doubts as to the soundness of such a measure, yet feeling that something had to be done in order to appease the clamor of the proletariat and the alarming growth of socialism, adopted social insurance as a government measure, had a bill drafted, and it was enacted into law.

In England, National Health Insurance, as it is called there, had a slightly different setting but substantially the same background. In 1910, David Lloyd George, in order to strengthen himself politically, decided the time for such legislation was opportune. Not being able to speak German, he gathered about himself several interpreters, hid himself to Germany, and after interviewing the well paid heads of the German system, and after having been wined and dined and lionized for 2 weeks, returned to England very enthusiastic about the whole project, had a law drafted, and later secured its passage. In the recent parliamentary election the Liberal Party, of which Lloyd George has been the head for many years, elected to Parliament just 4 members, or less than 1% of the whole number. So, while Lloyd George may have saved his political skin by that Bill in 1911, he certainly lost his hide by it in 1931.

Practically every reform movement attracts to itself a considerable number of well-meaning, emotionally impressionable, impractical, irresponsible, very vociferous individuals; and very often a group, usually the very ones who manage the propaganda and who hope to gain some pecuniary benefit from it. Social insurance is no exception to this general rule.

One of the common characteristics of reformers is that they want a new law passed for every human ill, and when the law is enacted, they either sit back waiting for the millenium to arrive or

they rush off looking for new evils to correct by new laws, forgetting to see to it that the law just passed is being properly enforced, and forgetting at all times that all laws must depend for their enforcement not upon supermen but upon men often of less than average intelligence and integrity; upon politicians and their henchmen who are quick to see how these usually unsound and loosely drawn laws can be converted to their own advantage.

VIOLATIONS OF THE MEDICAL PRACTICE LAW

(A report from Dr. James J. McGuire, Secretary of the State Board of Medical Examiners.)

April, 1931, Succorso Scallone, of 150 Hillside Terrace, Irvington, paid a penalty of \$500 to the Attorney General for practicing medicine without a license. This was the third time that Scallone had been prosecuted by the Board. He prescribed drugs to be used both internally and externally.

April 28, Hildagard Ludwig, of Paterson, who conducted the Sulphur Vapor Baths, was convicted of practicing medicine without a license. As she refused to pay the penalty, she was committed to jail for 10 days by the Judge of the First District Court of Paterson.

June 11, the license, to practice midwifery, of Mary Salaky, of Perth Amboy, was suspended for a period of 6 months. The charge against Mrs. Salaky was failure to obtain the attendance of a physician in an abnormal case.

June 15, Willetta Hartley, of Dunellen, who treated by the use of *Viavi* remedies, was found guilty of practicing medicine without a license, by the Judge of the Perth Amboy District Court, and paid the penalty.

June 19, Jacob N. Green, a naturopath, of Newark, was found guilty of practicing medicine without a license, by the Judge of the Irvington District Court. He refused to pay the penalty and was committed to jail for 60 days. However, he was released by the Court after spending 7 days in jail.

June 17, Francis D. Smith, an electrotherapist, of Gloucester, paid the penalty for practicing medicine without a license.

September, the Judge of the Second District Court of Newark found Arthur Beitman and Michael A. Gugliemetti, both of Newark, not guilty of practicing chiropody without a license. As a similar case is pending before the Supreme Court, the Board decided not to take an appeal at this time.

September 22, Samuel G. Cohen, a licensed chiropractor, of Long Branch, paid the penalty for practicing medicine without a license. Cohen was exceeding his license, to practice chiropractic, by giving electric treatments and prescribing drugs.

September 24, L. Jefferies Brown, a licensed chiropractor, of Asbury Park, paid the penalty for practicing medicine without a license, having exceeded his license by giving electric treatments.

September 24, Alfred Becker, a masseur, of Asbury Park, was convicted of practicing medicine without a license and paid the penalty.

October 1, Hill Elmer, an itinerant electrotherapist, who had a tent on the outskirts of Salem, was convicted on a charge of practicing medicine without a license. The case was tried before the Judge of the Court of Common Pleas of Salem County and the defendant was committed to jail for 30 days.

October 8, Augustus H. Werner, of Morristown, pleaded guilty, before the Judge of the Morristown

Court, to a charge of practicing medicine without a license.

October 9, Abraham L. Fennimore, of Trenton, was convicted by the Judge of the Trenton District Court, on a second charge of practicing medicine without a license. He was unable to pay the penalty and was committed to jail for 45 days.

In November, Florence B. Haines, of Ocean City, paid the penalty for practicing medicine without a license.

November 19, George Thomas Nicklas, of Bloomfield, pleaded guilty before the Judge of the Irvington District Court to a charge of practicing medicine without a license. He was arrested on November 13 and was unable to obtain bond. The Judge sentenced him to the time already spent in jail, which was 6 days.

November 19, Marie Klobien, a hydrotherapist of Jersey City, was found guilty of practicing medicine without a license, by the Judge of the First District Court of Jersey City, and paid the penalty.

November 20, Randal J. Brown, a druggist, of Trenton, paid the penalty for practicing medicine without a license.

November 20, William Blumberg, M.D., of Trenton, paid the penalty for practicing medicine without a license.

December 1, Charles B. Lewis, a druggist, of Landisville, pleaded guilty before the Judge of the Atlantic City District Court to a charge of practicing medicine without a license, and paid the penalty.

December 1, Morris Natonek, who conducted a Health Food Store on the Boardwalk in Atlantic City, pleaded guilty to a charge of practicing medicine, before the Judge of the Atlantic City District Court, and paid the penalty.

In Lighter Vein

Hit the Golden Stairs

Jack and Jill
Sped down a hill
And hit a curve quite sharp;
The car turned turtle,
Jack's wreath was myrtle,
And Jill is playing the harp.
—Boston Transcript.

She Plays a Harp Now

Mary had a little car—
She thought 'twas out of gas.
One night she lit a match to see—
Above her waves the grass.
—Florida Times-Union.

Call the Mortician

He: "Why is the flag at half-mast?"
She: "The place is dead."—Midwestern Gelded Gosling.

Power of Gold

"Is the doctor treating her for nervousness?"
"Oh, dear, no. She's rich enough to have psychoneurosis."—Boston Transcript.

One Yum-Yum After Another

"Dar is always sumpin to be thankful about," said Uncle Eben. "When de watermelon fades away, de pork chop is right in its prime."—Washington Star.

Woman's Auxiliary

ATTENTION TO THE PRE-SCHOOL CHILD

Casting about for something of interest with which to open this department of the January Journal, and having in mind the frequently asked question—What is there for our Auxiliary to do?—the editorial eye fell upon an article written by Dr. Benjamin Bashinski, of Macon, Georgia, read at a meeting of the Woman's Auxiliary to, and published in the Journal of, the Medical Association of Georgia, in July 1931. We have on many occasions previously suggested tasks for the state and county auxiliaries; notably, in the blue "Primer" issued about 2 years ago, wherein we presented a considerable variety of propositions so that each individual auxiliary might choose for itself some work appropriate to its local needs or opportunities. Child welfare, with its innumerable problems, was one of the broad, generalized projects we presented for consideration; and we may well repeat and further emphasize that topic now, in view of the fact that in the interval of time since the Primer was written, the White House Conference on Child Health and Protection has been held and some of the welfare recommendations emanating from the Conferences at Washington, and at New Brunswick, have been set in operation.

In the article above referred to, Dr. Bashinski presented the 19 points embraced in the so-called Charter, or Bill of Rights, of Childhood, and upon that foundation constructed the paper which, under its original title, we reproduce herewith in an abbreviated form.

Before proceeding further in that direction, however, let us call your attention to the fact that the Crippled Children's Commission is about to inaugurate a survey of the state, with special reference to children crippled or otherwise seriously handicapped by the recent epidemics of infantile paralysis; possibly employing trained nurses or social welfare workers to search for and register the existence and condition of victims of that disease. Physicians, members of the Medical Society of New Jersey, have given approval to the proposed survey, and will cooperate with the Commission in finding and caring for such children, and there may be opportunity for the Auxiliary also to participate in this work. At any rate, that is another matter to consider in connection with any other plans relating to the pre-school child. Now, for presentation of Dr. Bashinski's paper:

Correcting Physical Defects in the Pre-School Child

The time for the Summer Round-Up has arrived, and in our opinion that is an annual affair for all time to come. Medical inspection of pre-school and school children in the United States is relatively new. The first law that was passed in the United States relative to school medical examination was in Connecticut, in 1899. Massachusetts, in 1906, passed a mandatory law, which is the basis of most other bills passed in the 40 states now organized for medical work in schools. Inspection is now mandatory in Massachusetts, New Jersey, Rhode Island, Colorado, District of Columbia, Louisiana, Minnesota, Pennsylvania, Utah, West Virginia, California, Maine, Indiana, Vermont, North Dakota, New Hampshire, Washington, Ohio, New York, Virginia, Maryland, Wyoming, Delaware, Florida, Georgia and North Carolina. Only a few states have made any provision for medical exam-

ination in the rural sections, and children in rural schools comprise more than $\frac{1}{2}$ of the school population, and here the teachers introduce practically the entire health supervision.

Medical inspection may best be controlled by the department of health, especially as to communicable diseases, because it has specific authority, recognized by all the people, and is ably supported by the laws of the states. On the other hand, in nearly all communities the Board of Education has very large funds and, too, the teachers are all interested in the children, and will cooperate. Medical inspection in schools was organized primarily to combat the spread of infectious diseases, not only in schools, but because these children would carry diseases into their homes.

In our round-up, we should be on the lookout for carriers, individuals who harbor bacteria without presenting symptoms. Among those we find streptococcus carriers, and carriers of pneumonia, diphtheria, influenza, poliomyelitis or infantile paralysis, meningitis and typhoid.

We have been laying stress upon the preventive diseases in all of our campaigns and seemingly neglecting the teeth. It is most important that teeth of the first dentition be preserved in good condition until their work is done. How often do we see neglected temporary teeth, especially stain, caries, and abscesses—all neglected because mothers have been advised to leave them alone, inasmuch as other teeth will soon erupt and take their place. It has been estimated that from 33 to 53% of school children have dental defects.

Dr. Philip Von Ingen, in his report to the White House Conference, stated that the survey of the use of preventive measures among children under 6 years of age brought out many facts. He stated that of 14,000 city children in 146 cities, only 51% have ever received a health examination, and most of these were made during the first year of life. Of dental examinations, only 13%, the proportions varying from 42 to 1%.

Posture is as great a promoter of health as immunization. We should be on the lookout for spinal curvatures, round shoulders. Pre-school children should be taught the correct posture. All children should be examined barefooted, so as to detect flat feet, the secondary results being fatigue, poor circulation, and often lumbar pain.

As to preventive medicine, all of us are interested. We have at our command weapons of defense which have been proved almost 100% positive and even so we still find in this enlightened world some who are opposed to all of them. This should not discourage us because in every community we will find a certain percentage opposed to any health measure. Ignorance and superstition must be fought so as to protect our children. In our round-up we must insist upon vaccination against smallpox, giving of typhoid vaccine, scarlet fever toxin, and toxoid.

Every year we have 55,000 cases of smallpox occurring in the United States. This alone proves that we must not neglect vaccination. Only in the larger cities is it now compulsory. Let us vaccinate every pre-school and school child in the state. England has a compulsory law, requiring vaccination at 6 months of age. France, during the first year of life; so has Germany.

Contrary to general opinion, children of pre-school age have typhoid fever and therefore should be immunized against this horrible disease. Should we conduct a campaign just as energetically as we have for diphtheria, we would soon eliminate typhoid. Encourage this preventive measure and

lower the mortality. Immunization should begin at 18 months to 2 years of age.

Scarlet fever is now classed as a preventable disease, having passed the experimental stage. We have just passed through one of the greatest epidemics of scarlet fever in some time, which of course has left behind many serious complications and a number of deaths. A child may be protected just as safely and for the same period of time as diphtheria. Help us to begin a campaign to eliminate this dreaded disease. It can be done.

Rapid strides have been made in the prevention of diphtheria, and though our efforts have been untiring we still find a large number of cases developing. In our county in 1930 we had 82 cases, of these 32 being in adults, with 5 deaths. We immunized over 4000 children in 1930; 622 children of pre-school age were immunized by our Health Department. We now have at our command a preparation that is far superior to toxin-antitoxin, especially for children under 6 years of age. This is toxoid. The advantages are many: first, only 2 doses are required; second, quicker immunization, as we get 67% during the first 3 weeks and 97% the following 3 weeks; next, toxoid does not contain horse serum and may be given freely to asthmatic children, and if such a susceptible child should require any serum treatment, of any nature, in future years we will not have the danger of anaphylaxis, such as might develop after being given toxin-antitoxin. We must enlighten the public that when the tonsils and adenoids have been removed, only one location of diphtheria is gone. Tonsillar diphtheria is the mildest and easiest to respond to treatment. Laryngeal diphtheria, or membranous croup, as well as nasal diphtheria, is more rapidly fatal and requires more energetic treatment.

Infected tonsils and adenoids lead to many serious complications, and if not corrected early, to permanent damages, the most serious being rheumatism, oftentimes known as growing pains, having as its complication a most serious form of heart disease known as endocarditis, leaving, if the child survives, a permanently damaged heart, or a confirmed cripple. Enlarged adenoids will lead to many complications, chiefly mastoid. Again, enlarged adenoids will cause a stunted growth, as well as a deformed facial aspect.

In our round-up we have been paying too little attention to vision and other eye defects. In 1930, in our county, among 13,940 children examined by physicians, there were found 1029 with defective vision and 529 with other eye defects. This alone will cause headaches during or after school hours, with its associated loss of time, as well as repeating studies, not to say anything as to the happiness of that individual child.

One defect that has been overlooked so often in our round-up and even in school age is defective hearing. Here, again, adenoid tissue plays a most important part. Parents of a child with poor hearing are to be pitied for they have a great responsibility, as hearing is second only to sight as a means of receiving information.

We have been very interested in physical ills, but have paid very little attention to *mental hygiene*, which is equally, if not more, important. A young boy was asked the difference between character and reputation. He replied: "Character is what you are, reputation is what people think you are." Some standard method should be devised for estimating the child's capacity for education. At the present, our best method is the Binet-Simon scale. This scale helps us measure the intelligence of the individual. It is most important that one

versed in psychology conduct the tests. At any time that a teacher reports bad behavior or disobedience, or disinterest, the scale should be used. The same holds true if that particular child is lagging in mathematics, reading, spelling, or language. Not only should the scale be used, but the environmental situation inside as well as outside the home should be studied.

The child's personal characteristics are also important, especially as to energy and initiative; in other words, is he rebellious or does he have a tendency to proceed with intelligence or independence? One should try to determine if there is any hidden conflict between desire and duty. Another point would be to determine if there is any indirect habitual association as showing interest in his surroundings or shutting himself away from others or hard to influence. We should always try to find if he is over-sensitive or over-conscientious.

The well-trained teacher can do so much with the child's disposition, especially temper. The most important thing in over-coming this tendency is to make the child understand the harm he derives from it. The child should be reasoned with between his tantrums as a physician talks over a medical problem with his patient. One successful teacher places her hand firmly and kindly on the shoulder of a boy who is enraged; another helps him bathe his face in cold water. Love and joy are as essential to normal development as sunlight is to a plant.

In conclusion, I should like to quote from an article by Russell Burkhard in *Hygeia* of March 1931, he himself quoting from Arnold Gesell.

"Developmentally, the child is indeed rather a well-finished product when his 6-year molars appear. The pre-school years are incomparably the period of most rapid and most fundamental growth, whether physical or mental. Biologically, the pre-school age is most important for the reason that it comes first. Psychologically, the pre-school years are basic because the foundations of the structure of personality are then laid. Medically, the pre-school age is critical because it exceeds all others in mortality and morbidity. Not only most of the physical defects of school children originated in the pre-school period, but also the mental. What is more important, most of these abnormalities are recognizable in the early years. Child consultation centers could be of significance in gathering data from the pre-school child for the public school."

Atlantic County

Reported by Mrs. Maurice Chesler

On November 13, the Woman's Auxiliary to the Atlantic County Medical Society met at the Chalfonte Hotel, with Mrs. J. H. Beckwith presiding. After the regular business, Mrs. Beckwith called for the report of the Nominating Committee, of which Mrs. Pauline North was chairman. The following names were offered:

President, Mrs. James H. Mason, 3d; First Vice-President, Mrs. W. Price Davis; Second Vice-President, Mrs. L. M. Walker; Treasurer, Mrs. Robert A. Bradley; Recording Secretary, Mrs. Lawrence A. Wilson; Corresponding Secretary, Mrs. Maurice Chesler.

The slate, as presented, was adopted and the above officers were elected by acclamation and duly installed.

Mrs. Beckwith discharged the Nominating Committee with thanks, and in her Farewell Address also commended the officers and members for their

services and coopération; and also congratulated the newly elected officers. As a token of appreciation, she was presented with a beautiful plant from the Auxiliary.

The December meeting of the Auxiliary was held on the eleventh at the Chalfonte Hotel, with Mrs. James H. Mason presiding.

The following committees were appointed: Mrs. W. Blair Stewart was named Chairman of Hygeia, and Mrs. E. H. Harvey, Chairman of the Courtesy Committee. Mrs. Massey as Historian, while the Entertainment Committee includes Mrs. Pauline North, Mrs. D. Ward Scanlan and Mrs. Maurice Chesler; Mrs. Lawrence A. Wilson, Mrs. Myrtle Frank, Mrs. L. M. Walker, Mrs. V. E. Johnson, Mrs. Bernard Crane, Mrs. Baxter Hall Timberlake and Mrs. D. C. Reynor form the Telephone Committee. On the Membership Committee are Mrs. Carl Surran, Mrs. Louis Rosenberg and Mrs. Edward Guion. Mrs. Samuel L. Salasin is Publicity Chairman.

A motion was made and carried to give Christmas gifts to the amount of \$10 to each of the following: Santa Pals, Pine Rest Sanatorium, Municipal Hospital, Betty Bacharach Home, and the Atlantic City Day Nursery.

A social hour and bridge were afterward enjoyed by those present.

Attending the meeting were: Mrs. James North, Mrs. Robert A. Bradley, Mrs. Baxter Hall Timberlake, Mrs. Maurice Chesler, Mrs. John F. Massey; Mrs. James H. Mason, Mrs. Bernard Crane, Mrs. Percy Clark Joy, Mrs. Herman Kline, Mrs. Joseph Poland, Mrs. Sidney Rosenblatt, Mrs. Milton S. Ireland, Mrs. L. M. Walker, Mrs. E. L. Shore, Mrs. E. G. Shreve, Mrs. Charles Hyman, Mrs. R. I. Schenfield, Mrs. W. Blair Stewart, Mrs. D. C. Reynor, Mrs. Samuel L. Salasin, Mrs. W. Price Davis, Mrs. Louis Rosenberg, and Mrs. Lawrence A. Wilson.

Bergen County

Reported by Mrs. Harrison B. Wilson

The Woman's Auxiliary to the Bergen County Medical Society met October 13 at the Hans Christian Anderson Tea-Room, in West Englewood, for luncheon, the president, Mrs. Kilts, presiding.

The Nominating Committee presented the following names, as officers: President, Mrs. Joseph Morrow, Oradell; First Vice-President, Mrs. Leroy Black, Rutherford; Second Vice-President, Mrs. Charles Knox, Ridgefield Park; Corresponding Secretary, Mrs. George Knowles, Hasbrouck Heights; Recording Secretary, Mrs. M. M. Lynch, Hackensack; Treasurer, Mrs. F. A. MacCauley, Teaneck; Directors, Mrs. Spencer Snedecor, Hackensack, and Mrs. R. N. Blake, River Edge; Advisory Board—Mrs. Edward Clarke, West Englewood; Mrs. Michael Sarla, Hackensack; Mrs. W. Kilts, Teaneck.

Two guest-speakers were present—State Auxiliary President, Mrs. H. Roy Van Ness and Dr. Joseph Morrow, of Oradell.

On November 9, the Auxiliary met at Holy Name Hospital, Teaneck, Mrs. Morrow, the new President, presiding.

Mrs. Johnson, from the State Training School for Girls, at Trenton, gave a most interesting talk. Refreshments and a social hour followed.

On December 8, the Auxiliary met at Englewood Hospital, the President, Mrs. Morrow, presiding.

The speaker for the evening was Miss Edra Young Bond-Child, Health Director of New Jer-

sey Tuberculosis League. Her subject was "The Health Significance of Parental Control", a most interesting talk.

Refreshments were served and a social hour followed.

Hudson County

Reported by Mrs. Helen Murphy

The regular monthly meeting of the Woman's Auxiliary to the Hudson County Medical Society was held on Monday afternoon, December 7, at the Y. W. C. A., about 40 members being present.

Mrs. Freile moved that the Emergency Fund, so far as collected to date, be given to the Red Cross and Visiting Nurse Service and her motion carried.

It was voted to give the Boy Scout Campaign Fund \$25.

The program for the afternoon was Hygeia.

Mrs. George M. Culver, the President, explained some communications received from the National Auxiliary to the American Medical Association concerning the necessity for this society to promote the reading and distribution of Hygeia. As Hygeia is the authoritative health journal of the medical organization, it is the business of our Auxiliary to see that it is put in the hands of the people.

As health is the first objective of education, use of this magazine in the schools was stressed; and it was also shown how it could be used to advantage by Boy and Girl Scout Societies, Parent-Teacher Associations, in club-rooms and public libraries.

After this talk, the members enjoyed a bridge game and tea.

Mercer County

The regular monthly meeting of the Mercer County Medical Society was held at the Trenton Country Club on Wednesday, December 9, and the Woman's Auxiliary held its meeting at the same time and place. Mrs. D. Leo Haggerty, the President, was in the chair, and there were about 40 members present.

Mrs. J. Oliver McDonald and Mrs. A. Dunbar Hutchinson had served as a special Committee of Arrangements, and earned the credit for making this such a successful event.

"Organization" was the subject of the address given by Mrs. H. Roy Van Ness, of Newark, at a meeting of the Woman's Auxiliary also held at the Country Club. Mrs. Van Ness, who is president of the Woman's Auxiliary to the New Jersey State Medical Society, stressed the importance of perfecting organization of the county auxiliaries.

Other guests, who spoke briefly, were Mrs. Kate Burr Johnson, Superintendent of the New Jersey State Home for Girls; Dr. Ada Z. Wright, Medical Director of the Home, and Mrs. Charles Franklin Adams, President-Elect of the State Auxiliary. Greetings were extended by Mrs. Adams, who gave an account of a meeting of the Philadelphia Medical Society Auxiliary held Tuesday.

During the business session, plans were made for the conference of the State Society Auxiliary to be held on Monday, January 11, at the Stacy-Trent Hotel, beginning at 11 o'clock.

Ocean County

Reported by Mrs. Eugene G. Herbener

At the club-house of the George P. Vanderveer Post of the American Legion, Toms River, Thursday afternoon, November 19, the Woman's Auxil-

lary to the Ocean County Medical Society held a delightful bridge party, with 7 tables of players. Prizes were given for high score at each table. A variety of delicate refreshments was served at the conclusion of the play and members and guests spent an enjoyable afternoon.

Those present included: Mrs. Frank Denniston, Mrs. M. P. Johnson, Mrs. Daniel McElhiney, Mrs. Guy H. Swan, Mrs. Joseph Willits, Mrs. E. F. Parker, Mrs. George B. Parker, Mrs. Anthony M. Then, Mrs. Frank Brouwer, Mrs. Oscar C. Smith, Miss Mary Dugan, Mrs. Samuel Loveman, Mrs. August Oxner, Mrs. Philmon Conover, Mrs. Howard Howde, Mrs. Marie Fay Moore, Mrs. Stewart Lewis, Mrs. Joshua Hilliard, Mrs. Parker, Mrs. Jules Bierach, Mrs. Eugene G. Herbener, Mrs. Charles McCue, Mrs. Harold B. Disbrow, Mrs. Osborn Havens, Mrs. Helen Gallagher, Mrs. Blackwell Sawyer and Mrs. Alfred H. Woodhouse.

The proceeds are to go toward subscriptions to Hygeia, to be put in the Public Schools throughout Ocean County.

County Society Reports

ATLANTIC COUNTY

John S. Irvin, M.D., Reporter

The regular monthly meeting of the Atlantic County Medical Society was held in the Chalfonte Hotel, Friday, December 11, with 44 members in attendance, and the meeting was called to order by the president, Dr. Norman J. Quinn. The minutes of the previous meeting were read by Dr. Irvin, in the absence of Dr. Marcus, who was ill.

As the speaker scheduled for the evening had cancelled his engagement at the last minute, there was no scientific program to be presented.

Dr. Blair Stewart, Chairman of the Committee on Public Health and Sanitation, reported as follows: I am glad to say that Atlantic City and Atlantic County seem to be free from contagion. As you all know, there is at present very little sickness demanding the attention of physicians. There are 2 subjects, however, that I want to speak about. During the past week or so the old question—the smoke nuisance—has been raised before the Bureau of Health. Up to now, furnaces have been working only in moderation. Soon, they will be going in full force, when cold weather sets in. Everyone knows that oil burners, if not properly cared for, become one of the worst of nuisances. I have patients who complain bitterly of the tremendous amount of smoke coming from that source. A great many people are using soft coal, and if it is properly stoked, drafted and handled, the nuisance will not be so great. The railroad engines are the greatest offenders, because engineers are not using the proper amount of caution in stoking. This is going to interfere with the health of the people of Atlantic City, especially people who travel back and forth on Pacific Avenue. The Atlantic County Medical Society, as a body, should stand behind the Health Department in efforts to control the smoke nuisance.

The State Medical Society, at its last meeting, appointed a special committee to investigate the question of "state medicine" and its possible effect upon the physicians in New Jersey. The committee had a session on Sunday last and prepared a certain amount of work for the year. It is a

subject that demands immediate and careful study by every member of the medical profession. The line upon which this committee intends to work is to inquire first about conditions in each of the 21 counties of New Jersey; as to the amount of medical attention; the amount of free and of semi-free care; the amount and character of contract work; that is being done in this state. This committee expects to send out a questionnaire covering these and a great many other points.

There was an article in a recent edition of the Evening Union, stating that there is to be opened in the Convention Hall a free clinic, where they are going to give medical attention, at a fee of 50 cents, to all who may apply. Unless we stand together, as an organization, we are going to find a great deal of the work normally handled in our offices, taken away. We will have, particularly, to keep an eye on legislation at Trenton.

Discussion of this matter was participated in by Drs. Scanlan, Conaway and Silvers, and it was decided not to adopt any resolutions regarding state medicine, but, instead, to await a report from the state society's committee, or a request from that committee for expression of opinion on any point.

Dr. Scanlan, reporting for the censors, said: The Board has approved the applications of Drs. Carl Gordon and W. J. Doherty for membership and recommends their election, but holds over for further consideration the application of Dr. Handloff.

Upon motion, Drs. Gordon and Doherty were unanimously elected.

Dr. Conaway: I want, Mr. Chairman, to move that the society thank Dr. Scanlan for having served as Chairman of the Board of Censors for 3 years.

He was given a vote of thanks.

Dr. Conaway, for the Committee on Broadcasting, reported: We again have the use of broadcasting facilities at Radio Station WPG, this time until April 1 although the original agreement was that we should have them only to March 1. Consequently, if anyone would like to speak he may have the opportunity.

Dr. Irvin read the treasurer's report:

Balance last year	\$ 396.41
Dues paid	2550.00
Total	2946.41
Expenditures	2643.32

December 1, 1931 Balance \$ 303.09

Dr. Marcus asked me to tell you that members whose 1931 dues are not paid by the first of the year will be automatically dropped. Members whose 1932 dues are unpaid by February 1, will not find their names published in the Official List of members of the State Society. You may find yourselves in considerable difficulty in regard to insurance, particularly the group insurance carried for us through the State Society at such a reduced rate that the saving actually pays our dues.

A letter of resignation was read from Dr. Lewis Souder, who has been a member for 40 years, but who has not been practicing for sometime.

Dr. Conaway moved that Dr. Souder be made an Honorary Member of the Society, thereby be-

ing entitled to all the privileges without the payment of dues. It was carried.

The following nominations were presented by the Nominating Committee for officers for the ensuing year: President, Harold Davidson; Vice-President, J. H. Mason; Secretary-Treasurer, J. H. Marcus; Reporter, J. S. Irvin; Historian, H. L. Harley. Board of Censors: Drs. C. B. Kaighn, H. I. Silvers, Norman J. Quinn. Delegates to State Society (term expires 1935): Drs. E. H. Harvey, W. J. Carrington, S. Barbash, J. H. Mason, C. M. Fish, E. Uzzell. State Nominating Committee, Dr. William E. Darnall. Alternates to State Society Delegates: Drs. S. E. Dalton, W. B. Stewart, B. H. Timberlake, R. G. Stamps. Delegates to County Societies: Drs. W. Conaway, P. Marvel, Sr., W. B. Stewart.

The nominations were then closed, and it was moved that the Acting-Secretary cast a ballot for the above officers, who were duly declared elected. Dr. Quinn then called on the new president.

Dr. Davidson: I appreciate very much the honor you confer upon me, and with the enthusiasm that all newly elected officers have, I am going to give you one of the best years for the Society.

Dr. Quinn: This closes up our year and I want to thank all those members who have cooperated with me, and then the society in general. It seems one hardly becomes acquainted with the duties of President of the Society before he steps out. As a man comes in and another steps out, it leaves no continuity of policy. It came to me that an excellent idea would be to have the recent presidents serve on an Executive Committee. This would be of tremendous advantage to you and the State Society. There are many problems that a new officer has handed over to him. If he could have that committee act as an Advisory Board, as for instance, in regard to *state medicine* or the *smoke nuisance*. I have this in mind to propose as an amendment to our Constitution or By-Laws. We could have an executive committee composed of, possibly, 5 to 7 ex-presidents.

There is one other thing that I would like to see done this year; namely, to put collections on a sound basis. Some men think that the Credit Bureau is the solution to our troubles. I would like to see this carried on even if it is not with a local commercial agency, but possibly with some activity within our own group. This one idea you should see fit to vote upon at your future meeting.

It has been a very pleasant year and I have enjoyed it very much.

Dr. Conaway: We have thoroughly enjoyed Dr. Quinn's administration. I had a discussion with one of the young members of the society and I think one point he brought out is well taken. A., B. or C. are usually appointed on any committee proposed and the committees are practically limited to a few men and younger men are overlooked. I think in appointing men to committees hereafter, younger men should be kept in mind. It gives the younger men a chance to get on to the work.

The society gave Dr. Quinn a rising vote of thanks.

Atlantic City Hospital Staff

Joseph H. Marcus, M.D., Secretary

The General Staff of the Atlantic City Hospital held its monthly meeting Friday, November

27, with Dr. Milton S. Ireland, President, in the chair.

The scientific program was presented by Dr. Leo Kahn, Resident Physician, who read a paper on "Coma", of which the following is an abstract:

During the period extending from August 15 to October 1, there was an unusually large number of cases admitted to the medical wards in a state of coma. Many people become suddenly unconscious, in public as well as in private places, and in either case they are often sent at once to a hospital. Often a history cannot be gotten, and one must depend largely on physical findings and laboratory tests, and the former, in many cases, are unreliable. Hospitalization is then advisable, if only for the laboratory facilities.

Coma is defined as a state of unconsciousness from which the patient cannot be aroused; its causes are manifold. In some instances it comes on slowly and its coming was anticipated. Each of our cases was, however, of sudden origin, necessitating immediate diagnosis and treatment, and none was due to trauma; all being of the type known as a medical emergency.

Cerebral hemorrhage is one of the common causes of sudden coma, the loss of consciousness is complete and deep, with great relaxation. Sometimes it is more gradual and the loss of consciousness may not occur until after the patient has fallen or after paralysis of the limbs is manifest. The face is flushed, cyanosed, or ashy. Breathing is stertorous, pulse is slow and bounding, cheeks are blown out with expiration, and the lips are spluttering. The palsy usually affects one side including the face on the same side in most cases, with absent corneal and abdominal reflexes on the same side. Pupils are usually dilated but may be unequal and inactive. This is almost an exact description.

Our first case concerned an elderly white woman, who was picked up on the boardwalk and brought in by the police; patently a condition of hemiplegia. The second was another elderly white woman, admitted in coma, with only a suggestion of unilateral paralysis. However, within 12 hours the paralysis was much more pronounced, and it was proved later to be a crossed paralysis with facial palsy on one side and the limbs paralysed on the other; the hemorrhage was, therefore, in the lower part of the pons, affecting the pyramidal tract upper motor neurons, and the lower motor neurons of the facial nerve in its nucleus of origin. A third case of apoplexy, S. J., middle-aged, white male, was not in deep coma and was discharged in 2 weeks with the hemiplegia slowly abating.

Definite physical signs of uremic coma are conspicuous by their absence. Edema need not be present, nor do convulsions always develop with the coma. However, cardiac hypertrophy and hypertension are often present, the breath is usually urinous, and the eyeground findings are often characteristic. Examination of urine for albumin and casts and, blood chemistry findings of nitrogen retention, are indispensable in diagnosis. For instance, G. D., a young negro woman, was picked up on Atlantic Avenue, in coma, and there was neither cardiac hypertrophy nor edema, but blood chemistry revealed creatinin of 6.5 mgm. % and urea of 122 mgm. %. Then, L. A., another young negress, was admitted in convulsions as well as coma. She had an enlarged heart, hypertension and an odor of urine on her breath, and her creatinin was 6

mgm.% and urea was 64 mgm.%. In both cases death occurred within 2 weeks of admission. Another patient was admitted with a diagnosis of uremia, but this was ruled out by normal blood chemistry findings. Her heart was enlarged, there was hypertension, albumin and casts were found in the urine; and her breath was odoriferous. All of those findings can often be found in elderly people with a moderately advanced general sclerosis, and that was the case here; the patient proving to be an acute alcoholic. Now, this patient entered with a diagnosis of uremia, but far too often cases of uremia are diagnosed as alcoholism, and many patients in the pre-comatose stage, especially when there happens to be a breath odor of liquor, are sent to jail instead of to a hospital. E. P., a middle aged negro, was admitted in a condition of alcoholic coma, which was not very deep, but the alcoholic odor on the breath and about the person gave a clue to the diagnosis. Another middle-aged white female, comatose, had been treated a short time previously for alcoholic cirrhosis, and her history, being easily obtainable, aided in establishing the diagnosis of acute alcoholism.

In opium poisoning there are 2 cardinal signs: very slow respirations and pin-point pupils. The skin is often cold and clammy, the pulse slow, and the temperature subnormal. Our single case of opium poisoning was an old negro man who was discovered to have taken an over-dose of laudanum. His pupils were small and respirations averaged only 8 to the minute, falling as low as 4 at times. He responded well, at first, to rather strenuous treatment, but finally died in complete collapse and deep coma.

There was 1 case of "heat exhaustion", the patient being a middle-aged negro, admitted with a temperature of 96°. He responded well to treatment, but later showed the curious muscular cramps often found in this condition. There was also 1 epileptic admitted, but the convulsions were typical and disappeared under sedative treatment.

The remaining cases are of less common character. E. W., negro male, aged 30 years, was admitted with a history of some previous ear condition, and a diagnosis of lateral sinus thrombosis was ultimately made, but only after much trouble because of the paucity of findings in and about the affected ear.

N. W., white female, age 33, was admitted in coma, and no diagnosis was made until she became conscious and presented ample evidence of dementia precox; the coma being doubtless, one of the manifestations of the catatonic state of schizophrenia.

There were 3 cases of cerebrospinal lues, the patients being admitted in coma; all deeply comatose in fact, and diagnosis was based, in each instance, on spinal fluid examination. At some time or other the diagnosis of hysteria was entertained in each case. In spite of instruction that hysteria is only to be considered after every thing else has been ruled out, it is, too often, the first thing that comes to mind, and in 1 case the diagnosis of hysteria remained for 2 days before it was decided that the condition was alcoholic encephalitis; a diagnosis that was confirmed at autopsy.

To summarize, there were 2 cases of uremic coma, 3 acute alcoholics, 3 strokes, 3 cerebrospinal luetics, 1 epileptic, 1 sinus thrombosis, 1 alcoholic encephalitis, 1 dementia precox, 1 heat exhaustion, 1 opium poisoning and 1 diabetic

coma; 18 comatose patients admitted in 6 weeks. There were 11 different causal origins; 7 of them died; and not one had hysteria.

The most important lesson of all was brought home by a case we have not yet discussed. C. K., white male, aged 35, was seen, by life guards on the beach, to suddenly fall over while sitting on the sand. He was brought into the dispensary apparently moribund. He was extremely cyanotic from the shoulders up, and about his mouth was a circumoral pallor. Dyspnea was acute, and breathing rather shallow. His skin was moist and clammy. No particular odor of the breath could be made out. There was no clue of any sort presented by physical examination. Stimulants were given freely, and oxygen was used, the latter seeming to do good. It was Sunday afternoon and the laboratory was closed. However, a blood examination was ordered. Next day the patient walked out of the hospital in excellent condition, and did not seem in the least hurt by the incident. The blood study revealed a sugar level of 290 mgm.%, and he responded at once to insulin. The lesson here was not so much the duplicity and paucity of signs peculiar to diabetic coma, as the importance of complete laboratory tests in every case. No matter how often we hear this, it takes a case such as this to prevent us from overlooking this procedure, and no case of coma should be given a final diagnosis without such study.

Dr. Clarence L. Andrews reported upon the hospital's "Medical Service" for the months of August, September and October. During that quarter 136 patients were admitted and there were 20 deaths, a death rate of 14%, and 9 autopsies, which is an autopsy rate of 45%.

It must be apparent to every one that the hospital has not only grown in size during the past 7 years but that it is rapidly passing from a type of service in which the preponderance of patients were acutely ill, to a service which is far more complex, which requires foresight on part of the management to keep certain types from converting the hospital into a nursing home for incurables, and which makes the chiefs ever fearful that the high mortality rate may produce in the minds of the interns the unfortunate impression that the final outcome of all hospitalization is death, or cause the nurses to ask the question—what is the use after all?—because such patients are certain not to improve.

Our patients seem to divide themselves into 3 main groups: (1) Those who come in as a last resort and because they have given up hope of getting well at home. (2) Those who have tried every doctor in town, without improvement, and come into the hospital expecting better diagnosis, more rational therapy and greater nursing skill. (3) Those who are sent in, practically moribund when they arrive.

I shall report 3 cases illustrative of 3 phases of a successful service as I understand it: the importance of clinical experience, even in the midst of most careful laboratory procedures; the value of modern diagnostic tests for patients who do not look really ill and when observation alone might fail; the great necessity for the different services pulling together in order to accomplish a given end, instead of one group independently arriving at diagnostic conclusions which may be diametrically opposed to what the other services think.

The first case shows the importance of clinical

experience. E. K., white female, age 24, was admitted September 18 complaining of chills, fever and aching all over. Temp., 101°; pulse 105; resp. 20. Illness began 7 days before admission with chilly and hot sensations, fever and cough; symptoms which gradually got worse till she brought up rusty sputum and looked rather ill. Chest showed some suspicious areas at left base and at the angle of scapula, no definite consolidation, but diagnosed bronchial pneumonia. Next 2 days she ran a temperature 101° to 104°. Then it went from 99° to 104° each day and continued to do so for 2 weeks. Diathermy was given through left chest daily and after 2-3 days she felt rather comfortable, but the septic temperature kept on. Urine was negative; blood showed secondary anemia; 27,250 leukocytes; 85% polys. Widal negative; culture of blood and stool negative. Radiogram of chest 4 days later showed inflammatory area about fourth dorsal spine with suggestion of fluid at left base. Sputum showed mixed culture of bacteria, with pneumococcus predominating. Radiogram 7 days later showed dense area at root of lung with its base on the diaphragm, and the appearance of a pneumonic area and considerable exudate in the small bronchi. Blood urea 10; creatinine 1.4.

Temperature remained about the same but symptoms gradually got better, chest cleared up, and patient did not look very ill. Examination of nose, throat and sinuses by Dr. Charlton showed nothing of importance. On September 29, 11 days after admission, a second sputum to laboratory showed pure culture of diphtheria. In spite of complete lack of clinical evidence, she was given 10,000 units of diphtheria antitoxin daily for 3 days and put in isolation to protect other patients. This had no effect on the temperature and she remained about the same for 1 week more. Then she was given a capsule containing aspirin, camphor, quinine and caffeine, and as the temperature fell a bit she was allowed to get out of bed, and remained all right thereafter.

Our impression is that this was a case of pneumonia with delayed resolution, plugging of bronchi, and we had a non-pathogenic diphtheria culture which was not the cause of the illness.

Case 2. R. B., white male, age 43, was admitted September 3 complaining of trouble with his heart and kidneys, shortness of breath and pains in his legs; father died of heart and kidney disease. About 2 years prior to admission he consulted a physician concerning persistent dizziness and was told it was due to high blood pressure. Since that time he has not been well; has suffered headaches which gradually became worse, and disturbed vision; so, he came to the hospital. Upon admission his chief complaints were dizziness, disturbance in vision, abdominal pain and edema of ankles.

His temporal arteries were quite tortuous and sclerosed; eyes showed arcus senilis; second aortic was accentuated; transversely the heart was enlarged both ways; liver easily felt; abdomen somewhat distended; reflexes present and exaggerated.

We felt at the time that this was a rather advanced cardiovascular renal disease with arteriosclerosis, but he was thought not to be gravely ill. He was given cabinet baths daily and treated as an advanced nephritic, but gradually got worse and died on the sixth day. In this instance, old-style clinical observations alone would have

given the family a more encouraging prognosis than was justifiable. When we found the urea and creatinine conditions (urea 115 mgm. and creatinine (10), we knew that he was doomed. Postmortem showed a sclerotic infarct of the liver; sclerosis of the spleen; small, contracted, red kidneys with very advanced scleronephrosis.

Case 3. E. W., colored male, age 29, was admitted August 8 complaining of pain in his right ear, dizziness and persistent vomiting.

One week previously he was stricken with pain in the right ear, dizziness and vomiting. Several days later the ear drum broke and a foul discharge came from his ear. There was temporary relief, but the pain again became worse.

On admission, examination showed: a colored male who looked very ill and toxic; right ear showed a bulging drum, with tenderness over the tip of the mastoid; urine showed 135 mgm. of albumin and 10 hyaline casts to the low power field; blood showed 6450 leukocytes, with 89% polys—probably an error. Two days later the leukocytes were 21,500, and 85% polys. He was seen by Dr. Charlton who performed a paracentesis and advised irrigating the ear with 5% soda solution. The temperature remained about the same—102° to 104°; pulse 100 to 130; somewhat stuporous; and he appeared to the medical department to be very tender over the mastoid area, for he would even awaken when the mastoid was pressed upon while he was asleep. Blood culture and spinal punctures were negative throughout. Radiograph of the mastoid area, 2 days later, showed marked cloudiness with the cell outlines very hazy and indistinct; 4 days later a radiograph of the same area showed marked cloudiness of the mastoid cells with increased density in the region of the lateral sinus, suggesting a thrombosis. Report of nose and throat department stated that there was still no evidence of mastoid involvement or anything that would warrant surgery or radical treatment. Blood urea 2 days before death was 48; creatinine 1.9; blood sugar 130. He then showed all the signs of an active meningitis; stiff neck, unconsciousness and a positive Kernig. He became steadily worse, and died on the eighth day of what we believe to have been a mastoiditis, which got progressively worse, with an extension to the lateral sinus producing thrombosis, brain abscess and death. We feel that this man's one and only chance lay in a mastoid operation and he should have had that last chance.

Conclusions. The first case reported shows very plainly that one cannot be a good diagnostician, even with all the modern methods of laboratory procedures, without clinical experience. Number 2 shows that one cannot be a good clinician without the constant aid of a good laboratory to render its aid. Number 3 shows that although one may have great skill in diagnosis, all the positive tests of laboratory and roentgenology at his command, but if he does not put that knowledge into practice, the patient dies.

BERGEN COUNTY

Charles Littwin, M.D., Reporter

The regular monthly meeting was held December 8, at Englewood Hospital. The minutes of the November meeting were read and ap-

proved, and also those of the Executive Committee.

Dr. Morrow extended the privilege of the floor to Dr. Cochrane, to introduce Mr. Gilbert, who presented a plan for a bureau of registered donors for Bergen County similar to the one he operates successfully in New York. This was referred to Dr. Cochrane for further investigation and report.

Dr. Sawyer introduced Mr. Russel Binder, Advertising Manager of the Bergen Evening Record, who suggested that the society publish regularly in the Record a classified list of physicians such as the Hudson County Medical Society proposes. After a brief discussion, this was referred to the Public Relations Committee, of which Dr. Wolowitz is chairman.

Dr. Farmer gave a report for the Entertainment Committee that the deficit from the dinner was \$213, and that 296 men attended. Dr. Farmer mentioned some of the lessons learned from the affair to guide the Committee next year.

The report of the Committee on Nominations was submitted by Dr. Wolowitz, as follows: for President, Dr. Walter Schmidt; Vice-President, Dr. Samuel Alexander; Secretary, Dr. Spencer T. Snedecor; Treasurer, Dr. Michael Sarla; Reporter, Dr. Charles Littwin; Delegates, Drs. George Finke, F. S. Hallett, and George Levitas; Alternates, Drs. Wilson D. Webb, J. B. Edwards and T. E. Townsend.

The Secretary read the letter which he had written to Mr. Thier, Director of Unemployment Relief, in which he volunteered the assistance of the physicians; and also Mr. Thier's reply. After some discussion by Drs. Alexander, Farmer, Irwin and James, a motion of Dr. Corn's was passed; that the members of the society, in pursuance of professional ethics, will willingly respond to every deserving call.

Dr. Wolowitz announced the Post-Graduate Courses to begin in January—Fractures and Traumatic Surgery, Dr. John Moorehead; and Medicine and Newer Therapeutics by Dr. Gold and others.

Two representatives of the Passaic-Bergen Mercantile Credit Bureau were presented by Dr. Littwin. They outlined to the society the plan already approved by the Executive Committee. After a brief discussion, it was regularly voted to approve the Passaic-Bergen Credit Bureau for trial.

The scientific program was:

"Management of the Diabetic Patient", by James R. Scott, M.D., Chief of the Diabetic Clinic of St. Luke's Hospital.

Dr. Scott's talk was singularly concise and practical.

TESTIMONIAL DINNER BY THE BERGEN COUNTY MEDICAL SOCIETY TO DR. WILLIAM L. VROOM

The annual dinner of the Bergen County Medical Society was held in Arcola Manor on December 3, and was attended by almost 300 members and guests. On that evening the society did honor to Dr. William L. Vroom, upon conclusion of 40 years in practice. His address, which was enthusiastically received, follows:

To you, my colleagues, I wish to express ap-

preciation of the honor bestowed upon me this night, not only in being able to participate with you on this occasion, but in having been permitted to enjoy the past 43 years in the practice of medicine in Bergen County.

I will evade tonight the tendency to reminisce, as you of tender years may distrust the reminiscence of your elders who see their youth and



Dr. William L. Vroom

A SYMPHONY OF DEEDS

H. Edwin Lewis

A life so clean, with service as its cue,
Such ceaseless effort for the sick, forlorn,
That tongue nor pen can give the homage due,
Save to thank God that such as he was born!

How many hearts have filled with grateful cheer
At words of hope that he alone could give.
How many times his skill has banished fear,
And taught some erring one the way to live.

A true physician, thinking naught of self,
His entire life a symphony of deeds,
Untouched by baser aims or greed of pelf,
His only aim to succor human needs.

And thus he stands the nestor of us all,
Beloved, admired, with every man his friend.
Long may it be before he hears the call,
Far in the future may his journey end.

times in the flattering light of distance. This period we have just lived through is the time in which some of the greatest advances and achievements in medicine have been made. We who

began our careers 40 years ago, at that time started with a severe handicap, of which you of this day know little. We knew not the cause of malaria; tubercle bacilli, as a cause of pulmonary tuberculosis, was a question. No diphtheria antitoxine, no salvarsan, and just dawning upon us the entity of appendicitis. I need not enumerate the long list of accomplishments, precise laboratory diagnostic tests, x-rays and other discoveries of the period. This state of medicine had so advanced, that we began to think the very world was ours. Then, upon that was built the medicine of today. Prevention of disease, preventive medicine, the highest of our attainments, but built upon what had happened before.

This heritage that has been elaborated during these past few years will now be handed on to you, the younger generation, who come so well equipped and without the handicap of your predecessors. But, you will have your problems yet, perhaps just as hard to meet. These are the fields of specializing, the institutional medicine of the state, special clinics, medical centers for diagnosis and treatment, hospitals for treatment of contagion, and many special diseases. I wish, for comparison with the practice of medicine as we know it today, to recount a bit of history as medicine was practiced in our early colonial days, when the art of healing was carried on chiefly by the clergy. The care of the sick came naturally within the sphere of their parochial duties and many of them were distinguished for their knowledge of medicine, and were authors of some of the earliest medical papers printed in America. In some instances, the schoolmaster was the physician and surgeon of the neighborhood.

New Jersey had among its earliest medical men a few who had received their training in the schools of Europe. By far the greater number, however, having no liberal education, had lived a year or two with a practitioner of some sort, read a few available books on medicine, and then, assuming the title of "doctor", offered themselves to the people as competent to cure diseases. Every neighborhood seems to have had someone who could bleed the plethoric patient and could extract teeth. Occasionally a handy-man would straighten a cracked bone and be given great credit and the title of doctor for doing so. In nearly all cases of sickness the remedies employed were the growth of the soil, very little medicine as it is known today being used.

Among the Hollanders of Bergen County there was very little need of physicians for many years after the first settlement began. The climate was healthy and the settlers were of a hardy and enduring type. Malaria was comparatively unknown. All the early writers and correspondents who have described the condition of the country, either in books or in letters to their friends abroad, united in pronouncing East Jersey a very healthy country.

The year 1688 is the first in which we hear of any doctor in what is now Bergen County, Dr. Johannes, who lived in what is now Hackensack. Dr. Van Emburgh must have practiced in or about Hackensack before 1709, as a deed was filed that year to his widow and, incidentally, the earliest deed recorded in Hackensack was filed by John Berry, Hackensack, to Zuaria Westervelt, January 13, 1687.

Dr. Joseph Sackett, Jr., who practiced in Paramus, was one of the 17 who signed the Instruments of Association and Constitution of the Medical Society of New Jersey, in 1766, being the first medical society in the colonies, organized with 16 members at New Brunswick.

Dr. Abraham Van Buskirk, who lived in Paramus, was surgeon in the First Militia of Bergen County, February 17, 1776. In July of that year, the Provincial Congress ordered that the Treasurer pay Dr. Van Buskirk and 2 others, the sum of 335 pounds, 10 shillings, being the amount due for 79 stands of arms, at 4 pounds, 10 shillings a piece. Before the year was out, he had gone over to the British, bag and baggage, family and all. He was leader of many tory raids in Bergen County; one raid through Closter in 1779. It was reported that one Judge Fell, a noted patriot, an acquaintance of Dr. Van Buskirk, then Colonel Van Buskirk, was arrested at his home in Paramus and taken to Paulus Hook a prisoner, where he was recognized by this Colonel Van Buskirk and the following conversation took place. "Times have changed since we last met, John Fell." "So I perceive" said the Judge, looking at the Colonel in uniform. "Well, you are a prisoner and going to New York, I will give you a letter of introduction to the General", the purport of the letter being, "This, John Fell, is a notorious rebel and rascal". The General recognizing Fell as having been with him years before in Pensacola, handed the letter back, remarking, "My old friend, John Fell, you must be a very changed man and a very great rascal indeed, if you equal this Colonel Van Buskirk".

Many of the early physicians covered large circuits, often being away from home for several days at a time. They rendered efficient service to the public in the days of stage coaches, spinning wheels and tallow dips. While much of their system of medication is, today, obsolete, it served as a stepping stone to modern practice, and it would be unjust to decry their methods.

At one period the country was over-run with itinerant doctors, natural bonesetters and others of like character. Many clergymen took up the study of medicine, which they practiced along with their ministry. On the tomb-stone of the Rev. Robert McKean, of Perth Amboy, who was also the first President of the New Jersey Medical Society, is inscribed: "An unshaken friend, an agreeable companion, a rational divine, a skillful physician, and in every relation in life, a truly benevolent and honest man."

Dr. Elijah Rosencrantz graduated from Rutgers College in 1791, studied theology for a period of 16 months with Rev. Peter Studdiford, whereupon he was granted a license to preach. After preaching one sermon he decided he was not fitted for the ministry. He took up the study of medicine, and in 1799 received from 2 judges of the State Supreme Court a license to practice as a physician and surgeon in the state of New Jersey.

There were no schools of medicine in the colonies until the middle of the eighteenth century; the first in Philadelphia, 1765. New York Kings College, 1768, from which only 7 degrees were granted, prior to the Revolution. Rutgers College, of our own state, established a medical department in New York City.

Dr. Garret D. Banta, born in 1792, practiced in Paramus, and it is interesting to note that his wife was in the habit of accompanying him on his rounds and aiding in his professional work.

Dr. John Campbell practiced in Hackensack, about 1800.

Dr. Henry G. Banta, son of Dr. Garret Banta, born in 1815, followed his father in the practice of medicine, and also located in Paramus. He died in 1876. It is mentioned that his rounds often required 2 or 3 days before returning home, and that wherever mealtime found him he would make himself welcome. Frequently, upon leaving a patient, he would take along a sack of oats or corn for his horses, this often constituting the only compensation for medical services.

Dr. Du Bois Hasbrook, a cousin of Charles Hasbrook who practiced in Hackensack in 1839, was located on the Paramus Road at the Old Laue Place about 1854.

Dr. George B. Parker, a surgeon of the Civil War, was founder of City Point Hospital. It is related at the cessation of the war that President Grant said to him: "Doctor Parker, if there is any position you wish, I would be glad to make the appointment." The doctor in his characteristic way answered: "Thank you Mr. President, I am a Democrat."

Dr. Parker long treasured an axe with which, at the earnest solicitation of a number of officers, President Lincoln split a rail in his tent one night, to demonstrate that he had not lost his ability in that line.

In conclusion, may I quote a message? "Time young man has taught us both a lesson." To my mind, you have a problem confronting you in holding and guiding the trend of medical practice that it may be pursued and enjoyed as was intended, as one of the learned professions, uninctured, with gross commercialism.

CAMDEN COUNTY

R. L. Sharp, M.D., Reporter

The regular monthly meeting of the Camden County Medical Society was held in the Camden City Dispensary on Tuesday, December 1, with Dr. E. G. Hummel presiding, and 48 members present.

The Secretary, Dr. Gamon, made a verbal report on the transactions of the Annual Meeting of Secretaries and Reporters of the Component County Societies.

The Scientific Program consisted of an essay on "The Acute Abdomen", by Dr. William Shafer. A spirited discussion followed by Drs. W. J. Barrett and T. M. Kain, and our guests, Drs. Hagerty and Morrison, joining in.

President Hagerty, of the State Society, then spoke concerning the economic side of medicine of today, and Dr. Morrison, Secretary of the State Society, reviewed some of the work being carried on by the Society.

Mr. William Blanksteen presented an explanation of the policy offered by the Insurance Company carrying the State Society Group Accident and Health Insurance.

The Post-Graduate Lecture Committee reported progress with plans to present an excellent course this year.

GLOUCESTER COUNTY

Henry B. Diverty, M.D., Reporter

Members of the Gloucester County Medical Society met Thursday afternoon, December 10, as guests of the Underwood Hospital, in Woodbury, where they inspected the newly constructed addition to the institution.

Speakers at the luncheon included: Dr. Philip Marvel, Atlantic City; Dr. Reik, Editor of the State Medical Journal; Dr. J. Lynn Mahaffey, State Health Director; Dr. Crowe, Councilor of the Fifth District; Dr. A. Haines Lippincott, Camden; Dr. Collier, Superintendent of Lakeland Sanitarium; Dr. Roscoe W. Teahan, Medical Director of Jeannes Hospital; Dr. Emma Richardson, Camden, and Dr. Shipman, Eye Specialist at Cooper Hospital.

The program was part of the official opening of the new wing of the hospital.

There were delegates present from Camden, Cape May, Atlantic and Cumberland Counties.

ESSEX COUNTY

E. LeRoy Wood, M.D., Reporter

A special meeting of the Essex County Medical Society was held Friday evening, December 11, at the Academy of Medicine, Newark, with President James H. Lowrey in the chair. The purpose of this meeting was to consider what should be the attitude of the profession toward a situation that arose recently at the Hospital and Home for Crippled Children, Newark.

A resolution expressing the society's views was unanimously passed. The meeting was exceptionally well attended, over 200 being present. Before giving the resolution passed at this meeting it might be well to review the events that led up to the action.

This is a well-established orthopedic institution in Newark, and it has functioned in a creditable manner for 40 years, and until 3 or 4 years ago when a new Superintendent was put in charge by the Board of Trustees. Unrest followed and the Medical Staff attempted to have a joint meeting with the Executive Committee of the Trustees to consider medical problems but none took place. Early this fall different members of the staff heard from outside sources that changes in the Medical Staff were impending, and that the Medical Director, Dr. Holden, was to be replaced by 2 salaried physicians to be brought from outside the city. The Staff secured confirmation of these rumors and found the Trustees had determined upon action without consulting with the Medical Staff in any way. The Medical Director was, at the moment, very ill, in another hospital. A special meeting of the Medical Staff was called and the following resolution passed and dispatched:

October 19, 1931.

Mr. Arthur F. Egner, President,
Board of Directors,
Hospital and Home for Crippled Children,
Newark, New Jersey.

Dear Mr. Egner:

At a special meeting of the Medical Staff of the Hospital and Home for Crippled Children, held this morning, and which has just adjourned, the following action was taken: A resolution was presented which had been thoughtfully prepared, as the result of much experience and many conferences, and after discussion, in which everyone present took part in turn, it was unanimously passed. The resolution follows:

The Medical Staff of our institution having been informed that your Board of Directors has appointed 2 physicians at a salary of \$7000 per annum to take charge of our hospital, as medical directors, desires to protest this action for the following reasons:

(1) We wish to remind you that a request of the Medical Staff to meet your Executive Committee, to discuss hospital affairs, was refused. We feel strongly that the men who are giving their time and thought to run the medical side of the hospital should be consulted as to such things; that their knowledge and experience should be of very great value. We think that your Board has not been properly advised in making this recent move. It seems to us that high-handed procedures of this type would have been avoided had co-operation been invited from the Medical Staff.

(2) Your Board undoubtedly knows of the illness of the present Medical Director, and must remember his 32 years of unremitting service to the hospital, given cheerfully, willingly and without pay. We feel that it is a particularly inopportune time to make these new appointments—a gratuitous affront.

(3) We feel that the history of our institution indicates that this is a community hospital whose best interests will be served by men whose life-work is being given in the community.

(4) It is well known that the costs of hospitalizing patients is constantly mounting; that the demand for simpler hospital fees is pressing for solution, especially at the present time; that the Welfare Association has issued an urgent call for economy. We feel that this addition of \$7000 to the hospital budget is an unnecessary burden, especially when used for services that have hitherto been capably given without stint and without pay. This staff feels that it has been treated discourteously; that its knowledge and ability has been flouted; that its services have been ignored. We feel, therefore, that if these appointments go through, we must resign.

The vote was unanimous, taken by individual poll and individually signed by 32 members.

Yours respectfully,

The Medical Staff:

LeRoy G. Kirkman, President
Frank W. Pinneo, Secretary

Edgar Holden, Jr.	D. S. Eisenberg
John E. Toye	Henry Briggs
John K. Adams	Wm. J. Runyan
Frank W. Pinneo	Charles G. Crane
W. P. Eagleton	Wm. H. Hahn
Alfred Stahl	Jos. W. Gardam
LeRoy G. Kirkman	Ambrose Dowd
Chester R. Brown	Benjamin Saslow
E. Leroy Minard	Lewis W. Brown
Nicholas A. Antonius	Frederick C. Dinger
H. J. F. Wallhauser	Wm. G. Guthrie
John W. Gray	Henry DeVincentis
John F. Hagerty	Carl L. Minier
C. Frederick Baker	Francis J. McCauley
James B. Davidson	Edward B. Gibbins
Lucius Woodworth	Louis A. Saporito
Archibald Saporito	Allan Thorn
Henry H. Kessler	Clifford H. Gibbins
John J. Connolly	Edwin Cummings
D. E. Kavenaugh	Gerard A. Devlin

The Board of Directors persisted in its action and accepted the resignations of the Medical Staff members, who sent the following communication: The Medical Staff, at its final meeting held last evening, on the regular monthly date, and which meeting had been called several days before your communication announcing acceptance of our resignations, dictated the following resolution, which was duly seconded and carried, without a dissenting vote:

"To Mr. Arthur P. Egner,
President of the Board of Directors:

Contrary to statements in the public press, purporting to quote you, that the Staff 'walked out' leaving 80 patients to be cared for by 2 men, the members of the Staff, true to the tenets of our profession, have been carrying on and still remain subject to call by the hospital until such time as a new staff is able to take care of the work, but not later than January first."

At a meeting of the Council of the Essex County Medical Society, on October 26, 1931, the members had heard of the action of the Medical Staff of the Hospital and Home for Crippled Children and informally commented thereon. Later, in formal meeting, a motion was made, duly seconded, and, after thorough consideration, unanimously passed, congratulating the members of the Medical Staff of the Hospital and Home for Crippled Children for their bold stand on behalf of management of the medical affairs of a hospital by its Medical Staff, and condemning practices of a lay board of trustees which ignores the medical staff in medical management, and assuring the backing of the Council in maintenance of the principle which, without doubt, all members of the Essex County Medical Society would endorse.

The County Society at its special meeting passed the following resolution unanimously:

In a communication, dated November 30, 1931, the Board of Trustees of the Hospital and Home for Crippled Children notified the Medical Staff

that the Trustees had removed Dr. Edgar Holden from the position of Medical Director and had appointed Dr. Earl W. Vanderwerker in his place.

The Medical Staff has brought this action to the Essex County Medical Society for its consideration.

The Essex County Medical Society welcomes this opportunity, first, to state what we believe to be the general principle that should underlie the relations of Boards of Trustees and Medical Staffs in the solution of hospital problems, and second, to express our opinion of this particular action.

Hospitals exist principally for the medical and surgical care of the sick, which care must be in charge of competent physicians.

Boards of Trustees of hospitals are made up of public spirited men and women who have a sincere desire to serve the community, and are banded together in order that they may make possible the service that physicians give to patients.

Medical Staffs are made up of physicians whose relative positions on the Staffs vary according as years of experience and service, and their ability, may have qualified them.

Physicians, by reason of their trained and experienced knowledge of disease and its treatment, and because of their daily contact with hospitals and patients, are better qualified to understand and to solve the professional problems of hospitals; and because of their intimate knowledge of each other and of each other's work, are the only ones able to correctly judge the relative abilities of physicians.

Boards of Trustees and Medical Staffs each have special functions, some of which are distinct. There are, however, certain functions that should be performed jointly by Trustees who have the executive authority, and by the Staff, whose members have the expert knowledge. All problems connected with the essential purpose of a hospital, that is with the service which physicians give to patients, are better understood by the physicians and should be solved jointly by Trustees and Staff; also problems connected with changes in the Medical Staff of a hospital are better understood by the physicians and should be solved by coöperation of Trustees and Staff.

We believe, moreover, that the Senior Staff of every hospital, because of the many years of daily contact with the hospital and because of the vast amount of service that its members have given to patients of the hospital, has a heartfelt interest in the welfare of that hospital. The hospital becomes an integral part of the spiritual life of each. We believe that in shaping the administration of hospitals, physicians should have a large share, not because the physicians wish it, but because hospitals need their advice.

We therefore believe that Medical Staffs should have adequate representation on Boards of Trustees. We believe that there should be no change in the medical policy of a hospital without proper consultation with the Staff. We believe that no physician who has efficiently and faithfully and loyally served on a hospital staff should be removed or demoted without proper consultation with representative members of the staff.

We believe that the Medical Profession should

present a united front in support of the foregoing general principles, which are in the interest of the hospitals which the profession dearly loves and of the patients they serve.

Furthermore:

The Essex County Medical Society members being thoroughly convinced of the justice and wisdom of the above principles, have learned, with very sincere regret, of the removal of Dr. Holden from the position which he had held, after more than 30 years of service to the Hospital and, as we have been reliably informed, without any intimation as to the reason for his removal.

They feel that such action by the Board of Directors is an undeserved slight to one who has always been held in the highest esteem as a man of honor and integrity; well qualified in his chosen field of orthopedics, and who has given unselfishly of his time and skill in the peculiarly trying work of caring for crippled children.

Their sympathy is extended to the large group of physicians, dentists and others who have found pleasure, under his kindly and courteous leadership, in helping allay the sufferings of these little children, and admire the stand they have taken in repudiating such an ungenerous act.

They cannot understand the attitude of the Directors who, while daily associated with Dr. Holden in his work and fully acquainted with his long, devoted and helpful services to the Hospital, could, without a word of explanation, carry out such a harsh and unjust act as this; and, as a formal expression of their disapproval of the Board's action, they have adopted the following resolutions:

(1) The Essex County Medical Society extends congratulations to the members of the Medical Staff of the Hospital and Home for Crippled Children for their stand on behalf of management of the medical affairs of a hospital by its Medical Staff.

(2) The Essex County Medical Society condemns the practice of a lay board of trustees which ignores the medical staff in medical management.

(3) The Medical Staff concerned may be assured of the support of the Essex County Medical Society in maintenance of these principles.

The Academy of Medicine of Northern New Jersey

Adrian Ralph Kristeller, D.D.S., Secretary

At its regular December meeting, the Academy of Medicine of Northern New Jersey digressed from the usual course and devoted the evening to a series of papers on economics as related to the medical profession. The President secured 3 very capable men to present word pictures of work about which physicians know very little.

The talks of Chester I. Barnard, President of New Jersey Bell Telephone Company; Honorable John F. Murray, Director of Public Works; and James S. Plant, M.D., Director of the Essex County Juvenile Clinics; were both enlightening and entertaining.

The essayist for our meeting of January 21 will be Dr. W. Wayne Babcock, who will discuss "Diagnosis and Treatment of Cancer of the Large Bowel". That meeting will be under the auspices of the Section on Surgery.

The Academy of Medicine is planning to inaugurate "hospital bulletins" for the use of its members and the profession at large. The program is now in the drafting stage but we hope to have it ready very shortly.

Academy of Medicine of Northern New Jersey Eye, Ear, Nose and Throat Section

E. LeRoy Wood, M.D., Secretary

The Eye, Ear, Nose and Throat Section of the Academy of Medicine of Northern New Jersey, met Monday evening, December 14, under the Chairmanship of Dr. Charles W. Buvinger, of East Orange.

An inexpensive electric machine was shown, made by one of the members, to cost less than \$10 and to supply a measured and modulated galvanic current suitable for zinc ionization treatments or galvanic stimulation of the ear.

Dr. Brayton E. Failing, of Newark, read a paper entitled "Diathermy in Affections of the Eye, Ear, Nose and Throat", and Dr. J. Thompson Stevens, of Montclair, followed with a paper entitled "Electrothermic Surgery, Roentgen Rays, and Radium in the Management of Malignant Diseases of the Eye, Ear, Nose and Throat".

HUDSON COUNTY

Edward G. Waters, M.D., Reporter

The regular meeting of the Hudson County Medical Society was held at the Carteret Club, in Jersey City, Tuesday, December 1.

The speaker of the evening was Dr. Ira S. Wile, and his subject was "Some Physical Factors in Juvenile Behavior". In introduction, Dr. Wile defined *behavior* as the sum total of reactions and reactivity in social living, and went on to discuss what normal behavior consists in. Then, taking prenatal factors in their relation to juvenile behavior, he spoke first of the influences of heredity and discussed race, the effect of syphilis and sinistation, stressing the importance of not forcefully converting the latter. The dependency of twin relationships with mutual disadvantages was noted. The effects of blastophoria and alcoholism were detailed. The third group of prenatal factors included the acquired disabilities, notably cleft palate, cretinism and mongolism. The second major grouping concerned natal influences, embracing birth traumas, and especially cerebral injuries with hemiplegia, and peripheral injuries such as brachial palsy. The third major grouping of factors is the postnatal. Endocrinopathies. There may be (a) no relation between the child's behavior and the glandular dyscrasia; (b) there may be definite relationship, as is seen in certain cases of eunuchism, shyness and diabetic stealing; (c) there may be concomitant relationship, as is seen in hyperpituitary conditions with enuresis, occurring with headaches not due to the pituitary gland but to eye-strain; (d) two conditions may be commonly dependent upon some underlying cause such as syphilis or tuberculosis.

Among other postnatal factors are nutritional changes, developed mental errors, as in epilep-

tics, and the effects of trauma. For instance, hemianopsia with school limitation, hemiplegia with vocational limitation, fractures, amputations, and the memory of ether-mask terror following tonsillectomy. The presence of new growths, warts, keloids, and brain tumors may be of great importance in influencing juvenile behavior. The postencephalitic changes of behavior are among the most difficult to deal with and often completely change the individual. There is frequently a utilization of physical backgrounds to protect the individual in his behavioristic changes. When individuals are able to make the psychic subserve the physical, there may be a marked change. This was illustrated in the case of a young boy, his life made miserable by his companions because of a physical disability and a stutter, who became the leader of his group following his training and eventual demonstration of ability to whip the crowd. Another major group consists of those in which there is a psychic phase of physical activity, as illustrated by angioneurotic edema. The interaction of cerebrospinal and sympathetic nervous systems was commented on, and the subject of hysteria considered.

Thus, it is seen that there is a multiplicity of causes, physical in origin which cause behavioristic changes. It is only by dealing with the causes that we can in any sense hope to avert, correct or alter unsocial changes which may ruin a young life.

The paper was discussed by Drs. Jaffin, Rosen-
crazn, Dodson, Alter, Spence, D'Acierno and Shapiro. It is impossible to epitomize such an excellent paper as Dr. Wile's and do it justice. Each subject matter was thoroughly and entertainingly presented in a graphic form by recounting suitable case histories. The evening was easily one of the finest ever enjoyed by the members of the Hudson County Medical Society.

Following the main paper, Dr. Maras spoke concerning the diphtheria campaign and the matter of Schick testing. Inasmuch as the latter is of great importance at this time, 3 short 5 minute talks on the history, statistics, technic, interpretation and results of Schick testing were given by Drs. E. Phillip Stout, Tidwell, and W. Brooke. The meeting adjourned at 12.15 a. m.

Bayonne Hospital Clinical Conference

Maurice Shapiro, M.D., Secretary

The regular Clinical Conference of the Bayonne Hospital Staff was held Monday evening, December 7, with Dr. Lucius F. Donohoe, Chairman and Dr. Maurice Shapiro, Secretary.

Dr. Finger reported for Dr. Brooke the following surgical cases:

Case 1. H. S., male, aged 29, admitted with a large swelling of the right side of the scrotum, of several years' duration. It began with a small reducible swelling which gradually enlarged and finally reached its present size. As time went on, it became more difficult to reduce it and he finally applied to the hospital for an operation. The sac and its contents descended into the scrotum, and consisted of a part of the ascending colon, ileum and cecum with appendix, the tip of which was attached to the right testi-

cle. The cord was very thin, and a large amount of extraperitoneal fat was present. Combination of Macewen's and Bassini's method was employed. In short, an incision was made above Poupart's ligament, extending to the penoscrotal junction. The sac was exposed and divided in its middle. At this point it was necessary to remove the appendix in order to return the attached testicle into the scrotum. The remainder was returned into the abdomen, and the distal portion of the sac was closed, making a new covering for the testicle. The cord was laid on the new floor and then closed in a deep layer of the superficial fascia. The skin was closed with interrupted silk worm. No drainage. A well supported bandage applied.

The patient made a good recovery and was soon discharged. The interesting feature in this case was that the appendix (its tip) was attached to the testicle, which was probably drawing a part of its blood supply via the appendix.

Case 2. J. S., male, aged 28, was admitted complaining of dull pain in right lower abdomen, for past week. On examination, the abdomen was found tender, particularly over a point corresponding with the level of the umbilicus on the right side; that is, somewhat above and to the right of the appendiceal region. The symptoms were in favor of an acute appendicitis, the appendix being of the ascending type explaining the higher localization of the pain.

Laboratory. W. B. C., 5900; 62 polys; 38 lymphs. Temperature on admission, 102.4° and operation decided upon. The cecum and the parietal peritoneum appeared dry and deep blue in color, as if traumatized. A large part of the omentum was markedly edematous and congested, and showed signs of minute hemorrhagic infarcts with possible thrombosis, as if strangulated. The appendix, however, appeared to be normal, with no signs of acute inflammation. The appendix was removed; also a large piece of omentum. The abdomen was closed, with drainage. Patient made an uneventful recovery.

This case brings out the point that an inflammation of the walls of the cecum, called typhlitis, with its attendant symptoms will very closely resemble the symptoms of acute appendicitis. In fact, many cases diagnosed as chronic appendicitis, are in reality but a typhlitis. This should be borne in mind when considering an operation.

Case 3. H. S., male, aged 21, was admitted, with a history that for the past 2 years he had been known to have a duodenal ulcer; which was confirmed by fluoroscopy. For this he received treatment. About 2 days before admission he was seized with a sudden sharp pain in the right abdomen, accompanied by vomiting and fever. On examination he showed localized pain over the cecum, hyperesthesia and muscular contraction. The symptoms in question point strongly toward acute appendicitis but in view of his past history it was difficult not to think of a perforated duodenal ulcer. An immediate operation was advised.

A large, adherent, retrocecal appendix was found, gangrenous and with pus oozing from the tip. The large bowel was greatly distended. All free fluid was aspirated, and the abdomen was then closed, leaving a rubber tissue drain in place. Patient made an uneventful recovery and was discharged in good condition 24 days after

admission. The final diagnosis was acute gangrenous appendicitis.

This case brings up interesting questions: Will his ulcer clear up after this operation; or were his previous complaints due to a reflex irritation from the appendix, and a duodenal ulcer really never existed?

Case 4. J. S. P., male, aged 35, was sent into the hospital with a diagnosis of acute appendicitis. History is that he had been in fairly good health; had no digestive complaints but suddenly was seized with very acute pain in the abdomen, the pain extending upward from the sacral region and backward to the lumbar region. Some nausea but no vomiting. He had a similar attack 2 months before, but in much milder form. On examination, he was found to be in agony. The abdomen was somewhat retracted and tender, especially above the cecum.

Leukocytosis 10,800, with polys. 80%, and lymphs. 20%. Somehow the clinical picture was not entirely characteristic for appendicitis, and Dr. Brooke suspected some other pathology.

A high, right, rectus incision was made and the appendix found to be normal. However, the abdomen contained a moderate amount of seropurulent exudate. It was necessary to enlarge the incision upward and a methodical examination revealed the cause of the exudate: On the lesser curvature of the stomach an ulcer was found, the size of a dime, and at the bottom of the ulcer was a perforation. A large area around the ulcer was markedly indurated and fragile. The edges of the ulcer were inverted with Lambert and Halsted sutures; a piece of omentum laid on top, sewing it in; a large drain inserted and left in place; abdomen was closed with silk worm and clips. He improved rapidly and remarkably. This is his twentieth postoperative day and he is on the road to complete recovery.

Case 5. S. P., male, aged 33, was formerly a hard drinker but his general health had been good. He served 2 years in the Navy and during that time lost his father and brother—cause of death unknown. His family history and past history are otherwise negative, except for a fractured leg a year ago. About 1 month before admission, while at work, he vomited his breakfast. Later, he also experienced some epigastric pain, which usually occurred ½ hr. after meals. The pain was relieved by vomiting. Soda and food gave no relief. He never vomited blood, but noticed occasional tarry stools. His appetite was good and bowels moved daily.

Physical examination on admission showed fair nutrition. Chest, negative except for a soft, blowing, systolic murmur, best heard over the apex. The epigastrium was tender on deep palpation, but no masses were felt. The clinical symptoms pointed to a gastric ulcer, and that diagnosis was confirmed by fluoroscopy, which also showed a 10% residue in the stomach at the end of 24 hours.

He was given regular ulcer diet and the usual alkaline powders. He felt better for a week, then began to vomit again, his pain returned, and he was losing weight. On October 25, patient first noticed a hard mass in the epigastrium and since then he observed a slow increase in its size. The mass was quite hard, moveable and felt in the right epigastric region. Radiography showed an infiltrating neoplasm of the

greater curvature. A peptic ulcer should receive clinical consideration in view of the pyloric defect. Gastric analysis showed no free HCl; blood present; lactic acid absent. Boas-Oppler bacilli present. Under these conditions a gastric cancer was suspected and the patient was transferred to surgical service for operation.

An exploratory operation revealed a mass just above the pylorus, the size of a hen's egg. No evidence of hepatic metastasis; so, nothing else was done and the abdomen was closed.

Patient made a recovery, so far as the operation is concerned, but symptoms returned and at present he is vomiting and complains of epigastric pain. The points of special interest in this case are that the patient's complaints did not correspond symptomatically to a cancer but rather to an ulcer. It is quite possible, however, that the patient had a peptic ulcer which has become cancerous. However, pathologists are divided on the question whether or not a peptic ulcer may become cancerous. This case is also worth remembering as a proof that a gastric cancer may occur at the age of 33 years.

Dr. Chayse reported for the Medical Service the following cases:

Case 1. J. H., male, aged 32, was referred to the hospital by a private physician. Gave a history of being bed-ridden for the last 3 months; an increasing lassitude with moderate fever, increasing pallor and palpitation that led several physicians to a variety of diagnoses, such as neuritis, rheumatism and pernicious anemia. Several weeks elapsed before attention was focused on the heart. An important fact in the history was the recognition of several abscessed teeth, before onset of symptoms; which teeth were removed. The patient also gave a history of rheumatic heart disease of 4 years' duration. Despite all treatment, he felt himself getting progressively weaker, lost weight steadily and had chills with terrific cold sweats. About 10 days before admission, he noticed a bluish discoloration of the distal half of the right foot, unassociated with pain.

The skin was dry, inelastic and greenish in color. The fingers of both hands showed marked clubbing and cyanosis. Scattered petechiae appeared on the conjunctiva, roof of the mouth and skin. Oral hygiene was poor, with foul odor in the breath. Lips were dry, pale and yet cyanotic. Respirations labored and rapid. Expansion was good and breath sounds clear. There were no areas of consolidation nor were there any râles. Heart was enlarged to the left and extended as far down as the seventh intercostal space. A loud, blowing, systolic murmur was heard at the apex, obliterating the first sound completely. Liver and spleen were easily palpated. There were no areas of abdominal tenderness. The right foot, at the distal end, was cold and discolored.

During the course in the hospital, the patient ran a septic temperature; the murmur grew louder and coarser; red blood cells began to appear in the urine; sputum became blood tinged; blood culture was positive for *Streptococcus viridans* with 25 colonies per c.c.; moderate anemia was present (3,750,000); white count of 27,000; with a polynuclear neutrophilic count of 93%. During the last few days signs and symptoms pointed to the lodging of emboli in various abdominal organs, as well as the ex-

tremities. Cerebral embolism was the terminal event. Subacute bacterial endocarditis was the diagnosis.

Dr. Frieman, discussing this case, stated that he had performed a partial autopsy. Heart and spleen showed metastatic infarcts, and there were areas of infection in the spleen, liver and kidney. On opening the heart, 150 c.c. of fluid was found in the pericardium; no bands or adhesions between the heart and the pericardium, showing that the fluid was not caused by pericarditis but was a transudate. The mitral valves showed friable vegetations of the leaflets extending along the cordae tendinae and the wall of the auricle. The aorta showed vegetations on the free edge and along the corpus aurentii and the sinus. An attempt was made to find the embolus in the leg, but they were unable to trace it. The whole picture was that of subacute bacterial endocarditis.

Case 2. C. H., male, aged 56, had his onset of symptoms 4 years ago with a progressive tired feeling, weakness and loss of energy. He was always drowsy; slept at every opportunity, going to bed after his evening meal and remaining there until the next morning. Then he noticed frequency of colds, and a dry hacking cough which later became productive in character. The sputum was glary, abundant, purulent and putrid. At the same time, he became feverish in the afternoons and had night sweats; the bed clothes drenched with perspiration. Symptoms continued to increase in severity and number. He lost 60 lb. weight in less than a year. Expectoration was profuse, soon became speckled with blood, and finally frank hemoptysis. He would bring up from one-half to a cup-full of blood a day. Four months ago he noticed a gradual development of pain in the right anterior part of the chest, aggravated by coughing but constant and dull in character. He was very dyspneic and at times suffered from attacks of asphyxia. The patient also gave a history of chancre 30 years ago, being treated at that time locally for a short period.

Bronchoscopic examination disclosed at the entrance of the right main bronchus, a growth blocking this bronchus. A small piece was removed, which caused some bleeding. The patient seemed uncomfortable, the tube was removed and the patient sat up, and immediately became very cyanotic. He stopped breathing; adrenalin, caffeine and artificial respiration, besides suction of bronchi and use of oxygen, could not revive him.

Dr. Frieman presented some of the material removed at autopsy, showing the location of the cancerous mass in the bronchi. There were no signs of recent tuberculosis in the lung, though it did show healed lesions in the apex.

Dr. Larkey showed radiograms of this case, and stated that the pull of the heart to the right was due to an atelectasis of the lung, from blocking off the bronchus by the mass.

Dr. Frank presented a case of osteomyelitis of the toe, which he had treated with maggots. The young man had a weight fall on the toe producing a compound fracture thereof. After 3 months' treatment by his private physician he still had an active osteomyelitis. Dr. Frank opened it and removed the sequester. He then made 3 applications of maggots at 2 days intervals. At the end of the week there was no more discharge and the wound is showing steady healing.

Dr. Donohoe asked whether removal of the sequestrum was not sufficient to have caused the change in the picture but *Dr. Frank* replied that removal of the sequestrum does not produce so rapid a cure.

The meeting closed at 10.30 p. m. to re-open in the Dining Room where a beef-steak dinner was tendered to *Dr. William Antapol*, retiring pathologist of the hospital. *Dr. Antapol* is leaving on December 12 for a year's research work in Europe, on a Fellowship from Mt. Sinai Hospital. *Dr. Donohoe* acted as Toastmaster and reviewed the activities of *Dr. Antapol* during his tenure as pathologist and complimented him highly on the remarkable improvements that were made in the laboratory, placing the laboratory as second to none in the state of New Jersey. He presented him, on behalf of the Staff, with a traveling bag and wished him "God speed" and success in his further enterprises and asked him not to forget the Bayonne Hospital.

Dr. Antapol thanked *Dr. Donohoe* and the Staff for the courtesies and the good feeling that were shown to him and while he was satisfied with everything that had been done, he suggested a plan for further development of the hospital, which he believed the Staff and the Board of Directors should carry out. He introduced *Dr. Rubin Cares*, as his successor, and asked the same coöperation and good feeling toward him. *Dr. Donohoe* called upon *Drs. Brooke, Jaffin, Miner, Weiss, Shapiro, Larkey* and *Madaras*, who made short speeches as "testimonials" to *Dr. Antapol*.

Clinical Society North Hudson Hospital

J. Africano M.D., Reporter

The regular monthly meeting was held Tuesday, December 8, with *Dr. Boyer, D.D.S.*, acting as chairman. Hospital report for November was read by *Dr. Tannert*: total discharges 279; total admissions 296, deaths 21, of which 9 were medical, 6 surgical, 3 pediatric, and 1 each obstetric and new-born; 9 autopsies (43% of the deaths) were performed.

Dr. Justin gave a short, clinical account of 1 case which, again, showed how difficult it is to treat an advanced diabetic with complications. A female, 60 yr. old, entered hospital in coma, with urine showing acetone and diacetic acid; intense acidosis; treatment cleared the urine in 2 days, but patient had also developed gangrene of the left leg, with infection, and gangrene of the right second and third toes. On the fourth day cerebral and meningeal symptoms appeared, and she expired 1 week after admission. Autopsy findings: Heart, large and flabby; valves not diseased, but on one of the aortic cusps a soft vegetation showing on culture a Gram-positive non-hemolytic streptococcus; spleen of septic type; other organs, parenchymatous degeneration; left leg, necrosis and gangrene, with thrombosis at bifurcation of the popliteal artery; also, minute emboli in the cerebral cortex.

Dr. W. Braunstein traced the pathology as: an infection of the left popliteal vein released a septic embolus which lodged on the aortic cusp, forming a vegetation and causing a bacterial endocarditis; in turn, the brain and meninges were infected.

Dr. Madonia. "Subacute Combined Sclerosis". *J. A.*, male, aged 53, longshoreman, was admitted complaining of pain in bladder region, distention

of bladder, numbness in legs, and difficulty in walking.

Attempting to void, he could only dribble. Noticed next day that he was not sure of his footing and, when he attempted to walk, he would stagger; he also experienced a peculiar numbness and weakness in the lower extremities. On October 28, day of admission, he developed complete retention; was catheterized by a physician, who advised hospitalization.

Physical examination on admission revealed: Pupils equal and regular; react sluggishly to light and accommodation; teeth in very poor condition, many missing; marked distention of bladder; pain and tenderness over the suprapubic area; a small ulcer on the middle external portion of the right leg; disturbance of position sense in the right lower extremity; definite weakness in both lower extremities; gait was shuffling, with propulsion; Romberg, positive. Urine: cloud of albumin, with some white and red cells. Spinal fluid: 12 cells per c.mm.; globulin slightly increased; sugar normal. Spinal and blood Wassermanns negative. Gastric analysis, fasting specimen: Free HCl, 10; combined, 5; total acid, 33. One hour after test meal: free HCl, 10; combined, 10; total acid, 32.

Rectal examination by the G-U Service showed slight edematous hypertrophy of the prostate, marked congestion and debris after massage. Vesicles palpable and tender. Cystoscopy showed a normal prostatic ring with no encroachment of either prostatic lobe into the prostatic urethra; a slight enlargement of the median lobe. Marked congestion of both ureteral orifices. Bladder mucosa slightly congested at the base. The chief pathologic finding was a marked trabeculation of the bladder wall suggestive of a neurologic, and possibly luetic, origin.

Within a few days patient was unable to support body weight on lower extremities, and there was almost complete spastic paresis of both lower extremities, with shooting pains. Diagnosis not yet definitely determined.

Dr. Madonia. "Acute Anterior Poliomyelitis." *M. S.*, female, single, aged 18, admitted with the following complaints: Pain in both flanks, both lower quadrants and left thigh; burning on micturition; pyuria. Leukorrhea for past 2 yr.; at times a yellow and foul-smelling discharge; venereal infection denied. Onset of illness sudden. While walking with her mother she was seized with pain in both flanks and lower quadrants, continuous, dull in character and radiating anteriorly along the costal margins on each side. She also complained of pain in the medial aspect of the left thigh. Had been treated for her bladder symptoms, burning on urination, pruritus and pain after urination, without much relief.

On the second day after admission, she developed a rigidity of the entire abdomen; tenderness in both lower quadrants; pain in both lower extremities with numbness and inability to move legs actively. Examination at that time revealed a partial paresis and a marked hyperesthesia of both extremities; some spasticity noted over the entire body; rigidity of the neck, but no pain on passive flexion. Surgical consultants believed that the rigidity of the abdomen was due to a generalized muscular hypertonia which was part of a picture of meningeal irritation. At this time the patient was incontinent to feces and urine. Vaginal examination revealed nothing.

The paralysis has slightly improved and at the present time the patient is able to wiggle her toes. During her stay in the hospital, she has had a thick foul-smelling, mucopurulent vaginal discharge. Catheterization has been necessary, because of retention. The abdominal pain and tenderness have disappeared. Temperature on admission was 102°, and has fluctuated between 100° and 102° thus far.

Dr. Luippold outlined the confusing symptoms of pelvic inflammation and acute anterior poliomyelitis, in this patient to date; this morning some rigidity of the neck and back suggested a possible meningeal condition.

Dr. Justin still feels the case to be one of poliomyelitis with the pelvic inflammation a separate coincident condition.

Dr. Urevitz warned that in such a case as this, with an incomplete symptom-complex, acute poliomyelitis cannot be ruled out for 6 weeks.

Dr. M. J. Boyer. "Vincent's Infection of the Mouth." M. S., female, aged 5, admitted with a marked painful swelling of the right side of the lower jaw.

Onset with toothache, November 3, followed the next day by swelling of right jaw and face, which progressively increased and extended upward involving the lower eyelid. The day before admission, developed fever with no attendant chills, vomiting, diarrhea or sore throat.

Coarse râles at apices; sounds rapid, but of good quality. Abdomen distended. Swelling of the right submaxillary region, right side of face and lower eyelid; slight involvement of the left side, submaxillary region; unable to open right eyelid; fluctuation present on right side under angle of jaw. Copious flow of purulent exudate, with foul odor, from region of right deciduous molar teeth. Mucous membrane of the mucobuccal fold on the right side, sloughing and gangrenous; the mucous membrane of the lingual side elevated and sloughing; incisor teeth, loose and hanging. Teeth in the left molar region appear normal except for a slight gingivitis; there is also a slight gingivitis present in the upper jaw.

Diagnosis was: (1) neglected case of Vincent's infection; (2) osteomyelitis; (3) gangrenous stomatitis.

The right submaxillary space was incised; about 10 c.c. of purulent material was evacuated and the abscess cavity drained. The anterior lower incisor teeth, which were hanging and loose, were removed and the gums swabbed with tincture of iodine. The treatment prescribed was irrigation with potassium permanganate 1:3000 and swabbing of gums with acriviolet. The next day there was noted a more extensive involvement on the left side. The muco-periosteum was seen to be separated, thus exposing the alveolar process of the mandible both buccally and lingually, and this process extended from the anterior border of the ramus as far anteriorly as the incisor teeth. The posterior molar teeth were loose and ready to exfoliate. Swelling of the right side slightly reduced but left side now became involved. Child still quite toxic, irritable and indifferent to surroundings. The sloughing became more extensive on the floor of the mouth, all teeth being involved.

All signs convinced me that this was a neglected case of Vincent's infection as the left side revealed a destruction of the gingiva papillae covered with a grayish membrane typical of Vincent's infection. Smear was immediately taken

from that side and revealed a preponderance of the fusiform bacilli and spirochetes. The following treatment was then instituted: Mouth wash of sodium perborate to be used every hour; acriviolet every 3 hours; mouth wash of Fowler's solution, wine of ipecac, glycerine and hydrogen peroxide used 3 times a day. Neo-arsphenamine was given intravenously. The next day, the patient appeared greatly improved, reacted to her surroundings and seemed more alert. Temperature dropped to below 102°; swelling diminished, and sloughing of lower gums appeared to have been arrested. Because of difficulty of getting into the veins, sulpharsphenamine has been used in increasing doses intramuscularly. The patient is now able to sit up and play around in bed; teeth that were formerly loose are more firm in the alveolar sockets; appetite has greatly improved.

Present clinical appearance: There is moderate purulent discharge from the mucobuccal fold; the lingual side of the mandible is attached and firm; granulation tissue covering the superior surface of the alveolar process where teeth have been removed or have fallen out. The mucoperiosteum is separated from the mandible in the region of the molar teeth on the right side to the molar teeth on the left side, exposing a large, necrotic mass; the mucoperiosteal attachments are firmer and more localized than previously. The cervical lymph-nodes on the left side are swollen and circumscribed; the swelling is about 3 cm. in diameter, is tender to touch, and fluctuation is present; the swelling of the face has completely disappeared and the lower border of the inferior maxilla is palpable, indicating a localized osteomyelitis due to stagnation of the blood supply in the buccal side of the mandible by the destruction of the mucoperiosteum on the anterior surface of the inferior maxilla. A smear from the mouth now reveals no Vincent's spirochetes, so the entire spirochetic treatment has been discontinued.

This case illustrates the importance of early diagnosis and treatment of Vincent's infection, before the organisms have a chance to invade and destroy the deeper structures.

Dr. S. Africano. "Massive Collapse of Lung Following Trauma." F. D., white, male, clerk, aged 20, was admitted after injury in an automobile accident.

He complained of severe pain in the back, especially on motion, and coughed at intervals, bringing up small amount of sputum. There was a laceration over the right eye; ecchymosis of both upper eyelids; hematoma over the spinous processes of the lower dorsal and upper lumbar vertebrae; abrasions of left knee. Coarse bubbling râles over bronchi. No apex beat audible in the left chest; heart sounds heard in the right nipple line.

Radiograph of spine and left knee negative. On admission: temp., 98.2°; pulse 84; resp., 32. Temperature rose to 102° next day, and to 105.4° on the third day; with the pulse 134 and resp. 32. He complained of severe pain in the right chest posteriorly when he coughed. Expectored much thick sputum, which showed pneumococci. Diagnosis by the surgical staff was traumatic pneumonia and possible dextrocardia. X-ray picture of chest showed obliteration of the entire right lung; no heart shadow in the left chest; displacement of the trachea to the right. Thoracentesis was done and 5 c.c. bloody fluid ob-

tained; this showed many pus cells but no culture was obtained.

Medical consultation was obtained on the fourth day and the physical signs were dulness to flatness, with absent breath sounds below the right sixth rib posteriorly. The apex beat was visible just to the left of the sternum. The opinion of the medical staff was traumatic pleurisy with effusion. The apex beat began a gradual return to normal, and it was realized that there had been a collapse, or atelectasis, of the right lung with displacement of the heart and mediastinum to the right.

During the second week, the temperature ranged between 100° and 102.8°. Dulness to flatness persisted with bronchial breathing at the angle of the scapula. On seventeenth day roentgenogram showed the heart practically in its normal position; a patch of increased density in the right lower lobe, which subsequent course showed to be an area of atelectatic or pneumonic lung. The patient proceeded to an uneventful recovery except for a phlebitis of the left leg, which responded to wet compresses, moist heat, etc. He was discharged after 1 month in hospital, when examination showed normal lungs and heart in normal position. Final diagnosis was traumatic massive collapse of right lung.

Comment: Massive collapse may occur postoperatively, as a result of trauma to the chest, result of paralysis of diaphragm, or obstruction of a bronchus. The physical signs are those of effusion, with exception of the heart, which is always displaced toward the affected side. At first the breath sounds may be suppressed or absent; later, as the bronchi become more patent, there may be bronchial breathing indistinguishable from pneumonia. X-ray examination shows the following characteristics: (1) Extreme density of the shadow, which may even obliterate the rib shadows. (2) Displacement of the heart and mediastinal structures toward the affected side. (3) Immobility and elevation of the diaphragm.

Dr. S. Africano presented the serial roentgenograms in this case, and described the pathological findings.

Dr. Luippold agreed with the diagnosis, but stated that there was concomitant pleural effusion; for 2 days or so the patient was suspected of being a dextrocardiac, on basis of hyper-resonance and absence of normal left ventricular sounds.

pounded by the members and expressed the desire of his department to at all times cooperate with the medical profession in efforts to provide adequate medical and surgical care for persons applying to the department under his supervision. A rising vote of appreciation was accorded Mr. Gretton for his discussion of this perplexing problem.

Dr. North, the Treasurer, then made his annual report, which, thanks to his studious attention to the investment market, has not shown any loss for the society. Drs. Seely and Watts, after thoroughly investigating the books, reported a most satisfactory condition, and complimented the Treasurer upon the efficiency displayed.

Drs. Corrigan and Zimskind, tellers of election, after tabulating the ballots, reported the election of Drs. Applestein, Aronis, Haney, Miller, Mitskas, Guglielmelli and Sekerak, as members.

The President then discharged the Membership, Public Relations, and Infant Welfare Committees, with thanks for their work during the past year.

The Report of the "Contract Committee" was then read and following the reading there ensued much discussion, as each paragraph was taken up separately and thoroughly considered. Finally a motion prevailed that the subject be referred back to the Committee for further study and investigation.

Election of officers for the coming year, resulted in the unanimous choice of Dr. William L. Wilbur, for President; Dr. Wilbur Watts for Vice-President; Dr. Harry R. North for Treasurer; Dr. A. Dunbar Hutchinson for Secretary-Reporter. Drs. Charles H. Mitchell, W. G. Schauffler and Roy Seely, Censors.

Dr. James J. McGuire was elected member of the State Society Nominating Committee, with Dr. North as Alternate. Drs. D. B. Ackley, H. D. Bellis, R. B. Seely and Nathan Swern, Delegates.

Dr. Wilbur announced the members of his Program Committee, as Drs. George W. Williams, D. B. Ackley and E. F. Purcell, and reappointment of Drs. Reddan, Adams and Bellis as the Membership Committee.

A very delightful luncheon had been prepared by the Management of the Hotel but owing to the lateness of the hour only about 50 of the members remained.

MIDDLESEX COUNTY

MERCER COUNTY

A. Dunbar Hutchinson, M.D., Reporter

The Mercer County Medical Society met in the Stacy-Trent Hotel, December 9, at 8.30 p. m., with President Swern presiding. The minutes of the preceding meeting were read and approved.

Mr. John C. Gretton, member of the County Board of Freeholders, was introduced by the President, and delivered a very interesting and instructive address on "County Welfare Work, Its Cost and Expenditures". Mr. Gretton explained in few words the several responsibilities carried by the Board, the manner of conducting investigations relative to the indigent persons coming under care of the Board, the relationship existing with the several hospitals, and, with the present year's budget before him, described in detail the expenditures therein defined.

Mr. Gretton freely answered questions pro-

Medical Section Rutgers Club

John H. Rowland, M.D., Secretary

November Meeting

The regular monthly meeting was held on Friday, November 20, at the Hotel Klein, with 23 members present, under Dr. Gutmann, Vice-Chairman, and Dr. Rothschild acting as Secretary pro-tem.

Dr. McGovern reported about a plan, discussed with the Visiting Nurses' Association, whereby the Squibb plant will pay pregnant women for urine specimens, for the purpose of obtaining pituitary hormone, if physicians approve the plan and consent to have Wassermann tests made by the Squibb Laboratories. The report was accepted and a motion passed whereby the Visiting Nurses' Association is authorized to write a let-

ter to each physician, asking him to give consent to the plan, as follows: "To accept the Squibb plan whereby each pre-natal will consent to have a smear and Wassermann taken by the Squibb Laboratories. A confidential report of the findings will be sent to the pre-natal's physician."

Dr. Stanley R. Woodruff, Associate Professor of Urology in the Post-Graduate School and Hospital of New York, presented an excellent discussion of "Roentgen Diagnosis in Diseases of the Urinary Tract". He illuminated his words by the demonstration of several hundred Roentgen films. As he himself stressed, the evening was especially successful because no prepared paper was given, but instead there developed a very lively discussion of the pictures, in which many of the members took part. A sincere vote of thanks was given to the speaker.

As is the custom of the Club, the 4 members representing the entertainment committee, Drs. Sherman, Sullivan, Voorhees and Walker, had a splendid dinner prepared.

December Meeting

The regular monthly meeting of the Medical Section of the Rutgers Club was held Friday, December 18, at the Hotel Klein, with 22 members present, and Dr. F. C. Johnson presiding. There being no special business to transact, the speaker of the evening was immediately introduced.

Dr. John W. Gray, Pathologist, of Newark, spoke on "Arthritis and Rheumatism", illustrated with slides. He spoke particularly of: (1) Classification of arthritis; (2) frequency of the phenomena of rheumatic fever (signs, symptoms and complaints); (3) etiology; (4) diagnosis; (5) treatment; (a) general; (b) focal; (c) local; (d) corrective; (e) specific.

Dr. Gray read the case histories of many patients who had been under treatment and said that as the result of recent observations he had come to the following conclusions:

(1) Arthritis deformans is due to an Alpha type streptococcal infection of the joints.

(2) Climate and fatigue are important predisposing factors.

(3) The Alpha type, or Alpha prime, streptococcus causing arthritis deformans produces slight hemolysis in primary cultures.

(4) The blood or joint fluid was positive for this streptococcus in 62% of 71 patients under treatment for arthritis deformans.

(5) An improved cultural method for rapid growth of this organism from the blood and joint fluid has been developed.

(6) The clinical picture and pathology of arthritis deformans are typical of an infectious process.

(7) Agglutination tests are of considerable value in diagnosis.

(8) The importance of both general and focal treatment should not be underestimated.

(9) Specific vaccine therapy is the most efficient form of treatment because it has cured or improved conditions that were becoming progressively worse under other forms of treatment.

(10) Vaccine should be prepared from blood or joint cultures, when possible; otherwise, from cultures from foci or from stock specific strains.

(11) Vaccine treatment preliminary to the removal of foci, particularly badly infected tonsils, may prevent undesirable joint reactions.

(12) Vaccine for the cure of joint infection must be continued for a long period of time.

(13) Intravenous vaccine promptly relieves symptoms and probably controls a joint infection more quickly than vaccine injected subcutaneously.

(14) The dose of vaccine, and the interval between injections, should be so regulated that reactions do not occur, particularly joint reactions.

After the lecture the members were entertained with refreshments by the Entertainment Committee composed of Drs. Cronk, Applegate, Brody and F. L. Brown.

MONMOUTH COUNTY

Harold Kazmann M.D., Reporter

The annual meeting and dinner of the Monmouth County Medical Society was held at the Country Inn, Freehold, December 15. Minutes of the previous meeting were read and approved. The following officers were elected for 1932: President, Stanley Nichols, Long Branch; Vice-President, Robert Watkins, Belmar; Secretary, Daniel F. Featherston, Asbury Park; Treasurer, Walter Gosling, Red Bank; Reporter, Harold A. Kazmann, Long Branch; Censors, John Clayton, Freehold, 1 year; F. Bullwinkle, Atlantic Highlands, 2 years; W. G. Herrman, Asbury Park, 3 years.

Executive Committee: W. K. Campbell, Long Branch; James A. Fisher, Asbury Park; Walter Rullman, Red Bank; John Maher, Long Branch; W. H. Fairbank, Freehold.

Dr. W. G. Herrman, Asbury Park, was designated as a member of the State Society's Nominating Committee for Monmouth County.

It was announced that Dr. G. Van Vor's Warner, Red Bank, had been appointed a member of the State Maternal Welfare Committee.

The following men were elected to membership: John B. Boyd, Red Bank; James P. Peggall, Asbury Park; Louis F. Albright, Spring Lake; William Heatley, Red Bank; A. Rubin, Asbury Park; Elsworth F. Baker, Marlboro; A. Rosenthal, Atlantic Highlands.

The application for membership of Dr. Walter B. Allen, Keansburg, was laid over by the Board of Censors for 6 months.

Due to the seeming lack of local interest, it was decided to discontinue the weekly broadcasts from station WCAP, Asbury Park.

On motion of Dr. Fisher, seconded by Dr. Clayton, it was voted that the annual dues of \$19 remain the same for the year 1932, in spite of the reduction of \$2 in the State Society dues.

On motion of Dr. Herrman, seconded by Dr. Clayton, it was voted that the meetings in 1932 be confined to scientific sessions and that no collation be served after the meetings.

MORRIS COUNTY

Marcus A. Curry, M.D., Reporter

A regular monthly meeting of the Morris County Medical Society was held the evening of Thursday, December 17, in the recreation hall of the employees' cafeteria at the New Jersey State Hospital, at Greystone Park; President Krauss presiding over an assemblage of about 55 members and guests.

The scientific chapter was given preference in the order of the evening so that the speaker might be detained no longer than necessary be-

cause of his suffering the discomforts of a severe cold.

The speaker was Dr. H. M. Ewing, Heart Specialist, of New York City and Montclair, New Jersey, whose topic was "Congestive Heart Failure and Its Treatment".

Dr. Ewing gave a most interesting and detailed presentation of the subject, by reminding that it is a very common condition which all have to deal with; that he would try to deal with it in a very simple way; that one could write a book on congestive heart failure; that he would avoid the argumentative points; suggesting the causes as anything that increases the load of the heart and increases the work of the heart, by demanding more than it is able to do; this may be over-exertion, mental strain, or one of the chronic diseases. The speaker went painstakingly into the treatment, stressing the importance of rest, and said that in some hospitals there is a definite rule that the patient cannot have digitalis until the maximum effect has been obtained from rest; that rest may be in any form most comfortable to the patient and not necessarily in bed; that rest may be absolute or may be relative according to the patient's condition, by having exertion reduced or the patient to lie down for short periods or by putting him to bed a day a week or a half-day a week, having him stay in bed every Sunday morning until noon, shortening the hours of work or sometimes getting off early on Wednesday for a mid-week rest; going into much detail in the use of digitalis, morphine, chloral, and bromide, and that the regimen of treatment must be fitted to the patient.

Dr. Ewing's address was attentively received and was discussed by Drs. Young, Ford, Thomas, Frost, Curry, Collins, Julia Mutchler, Emory, Gillasso, McElroy, Abell, Beaver and Gibb.

Routine business was taken up, among which was the election to membership of Charles H. Dykeman, of Morristown, Harold S. Hatch, Superintendent of the Morris County Tuberculosis Sanatorium and George B. Kuite of Morris Plains on transfer from Hudson County. There was one nomination for membership, Dr. W. H. Seward, Jr., of Madison, which was duly referred to the Credentials Committee.

In the matter of the Commission for Improvement of Maternal Welfare, it was announced that President Krauss had appointed the following committees: Drs. Williams, Chairman; Costello, Frost, McMurtrie, R. Mutchler, Rice and Ward.

At the close of the meeting, which was outstanding in interest and helpful presentations, adjournment was taken to the cafeteria where refreshments were enjoyed.

PASSAIC COUNTY

W. W. Hall, M.D., Reporter

The regular meeting of the Passaic County Medical Society was held at the Health Center, Paterson, December 10. Dr. John Carlisle presided. The minutes of the November meeting were approved as read. The Censors' report was read, approving the applications of Drs. Henry D. Bongiorno, 516 River Street, Paterson; Anthony J. Delario, 56 Cross Street, Paterson; Jacob Stark, 557 Broadway, Paterson. The report was followed by the unanimous election of the applicants.

The scientific program consisted of a paper

entitled "The Cost of Medical Care", presented by Dr. N. B. Van Etten, of New York City, who has been a member since its inception of the Washington Committee concerned with the investigation of this aspect of medicine. Dr. Van Etten is also a Past-President of the New York State Medical Society.

Present conditions, of course, invest this subject with unusual interest and the matter was gone into thoroughly. The paper stimulated considerable discussion which was participated in by Drs. S. T. Snedecor, Elias J. Marsh, John N. Ryan, and Mr. Edgar C. Hayhow, Superintendent of the Paterson General Hospital.

SALEM COUNTY

William H. James, M.D., Reporter

The Salem County Medical Society met at the Memorial Hospital, December 9, at 2 p. m. Owing to inclement weather, there was not a full attendance.

The meeting was opened by Dr. Hilliard, in the absence of President L. C. Hummel.

This was strictly a home talent meeting and Drs. L. H. Hummel and F. H. Church, of Salem, gave us some very interesting case reports.

Dr. Church showed several x-ray pictures of a patient ill of lobar pneumonia, with the lower right lobe the seat of trouble. Patient seemed to be on the road to recovery, as the temperature remained normal for 7 or 8 days, but then it began to rise again. Aspiration was performed but with no results.

The next case was that of a patient with perforated gastric ulcer, operated on successfully. Although peritonitis set in, the patient made a good recovery. It is a good plan to operate early.

Dr. L. H. Hummel showed an x-ray picture of a gun-shot wound near the shoulder-joint, taking away the scapula and leaving a hole, large as a hen's egg, and a number of shot in the lung. The patient is 54 years old and at this writing looks as though he would recover.

Dr. Hummel also read a paper on "Tonsillectomy by Electrocoagulation" and gave a history of 75 patients operated on without any serious after-effects.

SOMERSET COUNTY

J. L. Young, M.D., Reporter

The regular meeting of the Somerset County Medical Society was held at the Nurses' Home, Somerville, December 10, and in the absence of the President and Vice-President, Dr. D. S. Renner was elected Chairman of the meeting.

The following members were present: Drs. Allis, Craige, Sferra, Lovejoy, Husted, Stillwell, Lawton, Smalley, Ely, Renner, Anderson, Young, Barbour, Mack and Meigh.

The Board of Censors reported favorably on the application of Dr. John W. Crawford, of Bedminster, N. J., and he was elected a member of the society.

A letter from Dr. Norman Crane was read, in which he stated that he had accepted a position with a New York hospital, which required his change of residence to that city and he was, therefore, tendering his resignation and also expressing regrets in not being able to accept the office of Secretary.

Dr. A. L. Stillwell, representing the Nominating Committee, moved that Dr. A. F. W. Sferra

be elected Secretary; and that action was taken.

Mr. Woodruff, of Rutgers University, spoke of the Post-Graduate Courses that would be available this year, and Dr. Renner appointed the following committee to make selection of subjects, and arrange program; Drs. Renner, Coleman, Mack, Husted, and Young.

Mr. William Blankstein, representing the Accident and Health Insurance Co. approved by the State Society, explained the group policy to the society.

The Society had, as guest, Dr. Morrison, who spoke of the benefits offered to doctors who are members of the State Society, this insurance policy being one of them.

UNION COUNTY

Russell A. Shirreffs, M.D., Reporter

At a special meeting of the Union County Medical Society, held at the Elizabeth General Hospital on November 28, to take action on the death of Dr. William Judson Lamson, the following resolution was adopted:

The Society learns with deep sorrow and regret of the untimely death of Dr. William Judson Lamson. He had practiced as a physician in the city of Summit during the last 30 years and had served as Secretary of the Summit Medical Society since its organization, 26 years ago; had been School Physician of the city of Summit for the past 22 years; was for several years a member of the Mosquito Extermination Commission of Union County; and a member of the Staff of Overlook Hospital since its organization in 1914.

In the passing of Dr. Lamson, the medical profession loses an outstanding member. He was an ideal physician; always in the vanguard of scientific progress; devoted to the ethics and precepts of our profession; kindly and considerate in his relationship to the sick, to whom he always gave his best; modest to a fault, in refusing many honors that his colleagues were anxious to bestow upon him.

RESOLVED: That this resolution be spread upon the minutes of the Society, a copy published in the local press of Summit, and a copy sent to the bereaved relatives, to whom we express our sincere sympathy.

Thomas P. Prout,
Cadwell B. Keeney,
Charles H. Schlichter,
Committee.

Resolutions on the Death of Dr. William J. Lamson, Adopted by the Summit Medical Society

At a special meeting of the Summit Medical Society, held at Overlook Hospital on Saturday afternoon, November 28, to take action on the death of Dr. William Judson Lamson, the following resolution was adopted:

Resolved. That in the death of Dr. Lamson, we record a sense of irreparable loss. As Secretary of this Society during the entire 26 years of its existence, we recognize a unique, unselfish and faithful service. As a physician, practicing his profession in Summit for the last 30 years, his memory will be cherished for his broad humanity. He was keenly mindful of his duties as a public servant; devoted to his patients irrespective of social station; a faithful friend; a

good companion; a wise and just counselor; endowed with the grace of understanding widely recognized; adding to the social qualities of a gentleman those of a kindly heart.

Resolved. That this resolution be spread upon the minutes of the Society, a copy published in the local press and a copy sent to the relatives to whom we also convey our sincere sympathy.

T. P. Prout
F. I. Krauss
C. B. Keeney
W. H. Lawrence
R. D. Baker
H. D. Jamison
Committee.

Obituaries

POWELL, William M., formerly of Atlantic City, died at Clayton, New York, on December 13, 1931.

The following tribute of respect, prepared by his friend and colleague, Dr. Walter Reynolds, and printed in The Atlantic City Press of December 25, is reprinted here through the gracious permission of its author.

Friend after friend departs;
Who hath not lost a friend?
There is no union here of hearts
That finds not here an end.

When the departed friend happens to have been also a physician *par excellence*, one who for the many years of his residence in this city upheld the noblest traditions of an honorable profession, it seems fitting to pause and offer a word of tribute to his memory.

This particular physician stood out from amongst the crowd as one who merited the praise offered in the words of Alexander Pope.

A wise physician skilled our wounds to heal,
Is more than armies to the public weal.

Not only was he wise and skilful, but it was truly said of him that he had never brought into the sick room the practices of the market place, that he had not bartered for the touch of Midas, the heaven sent gift of healing which had been bestowed upon him in generous measure.

Again we could paraphrase the poet and remember Dr. Powell as

Physician and friend to truth; of soul sincere,
In action faithful and in honor clear;
Who broke no promise; served no private end,
Who gained no title, and who lost no friend.

But before schooling made Dr. Powell a physician, Great Nature had made him a man. An honest man, the noblest work of God. If it be true that the history of the race is but that of the individual, writ large, then the contribution to history of the conscientious doctor is significant. His life was gentle, and the elements so mixed in him that Nature might stand up and say to all the world, this was a man.

Our friend has passed away, leaving only a memory, but what a delectable memory!

If I were writing his epitaph, I would use the words applied to one more famous but not more deserving:

Green be the turf above thee
Friend of my better days!
None knew thee but to love thee,
None named thee but to praise.

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FINDINGS OF THE GOVERNOR'S CONFERENCE ON CHILD HEALTH AND PROTECTION*

FRANK C. JOHNSON, M.D.,
New Brunswick, N. J.

At the call of the Governor of New Jersey, a large group of people met this past March at the New Jersey College for Women, in New Brunswick, for the purpose of making applicable to New Jersey the recommendations of the White House Conference on Child Health and Protection. Many members of this society attended the meetings in Washington and were as much impressed by the reasonableness of the final conclusions, as they were astonished by the findings of some of the committees. Not the least poignant was the rating of the various states and cities, in health organizations. The New Jersey Conference was one of the finest examples of the willingness of our people and their organizations to coöperate in an important and useful enterprise, and the reason for considering here today the report of the Hoover Conference is that we, the physicians to whom the health of most of the children in New Jersey is entrusted, cannot neglect careful consideration of and hearty coöperation in the work outlined at the 3 days' session of the Larson Conference, which was presided over by Commissioner William J. Ellis, of the Department of Institutions and Agencies, partici-

pating in a program arranged by Dr. Ellen C. Potter, of the same State Department, and conducted by the New Jersey Conference of Social Workers.

At New Brunswick, 1600 persons met to study New Jersey's present status in the broad field of Child Welfare; the gathering being composed of representatives of the 4 major state departments that deal with the child, i. e., the Departments of Education, Health, Institutions and Agencies, and Labor; representatives of county, municipal and private agencies which come into close contact with children; delegates from the Parent-Teachers' Association; the State Medical Society; State Federation of Women's Clubs; League of Women Voters; State Nurses' Association; Public Health Nurses' Association; Freeholders' Association; Probation Officers' Association; State Police; and many fraternal, service, recreational and character-building organizations; as well as Protestant, Catholic and Jewish religious societies, and students from the State University.

The conference was divided into 4 sections, designated as: Medical Service; Public Health and Administration; Education and Training; and the Handicapped Child; which last included dependency, neglect and delinquency. Each of these Sections proposed resolutions which were later adopted by the whole Conference; and, in many of their proposals, our society should be interested, and in the carrying out of some it should take part.

Recommendations that require responsive action by definite groups, were:

(1) That the State Board of Education

* (Read at the 165th Annual Meeting of the Medical Society of New Jersey, at Asbury Park, June 5, 1931.)

(a) appoint an Advisory Council to study ways of making specialized education available in local districts and of giving adequate opportunities to the gifted child; (b) establish classes in parent education, for intelligent and inquiring parents; (c) set up minimum standards as to the number, qualifications and training of school attendance officers.

(2) That the Governor be requested to appoint a committee to study the efficiency of local health administration in small districts, for the purpose of suggesting any legislation needed for improvement.

(3) That Health Officers should be full-time workers.

(4) That a review of all state and local organizations which deal with the health of children be made, looking toward improvement of service, and that this State Medical Society be asked to coöperate by the appointment of a committee to work for this in conjunction with the Continuation Committee of the Governor's Conference.

(5) That additional legislation be enacted for the protection of children in industry, and for the migratory child.

(6) That the Civil Service Commission keep its standards high for all social workers who are to deal with children.

(7) That a Research Council be formed to promote coöperation in child welfare research.

General recommendations suggested that:

(1) adequate public or private child-caring agencies be established in the state for the protection and care of children, thus providing case-work facilities to prevent delinquency, dependency and subsequent commitment of children to the care of the state; (2) desertion and non-support laws be more strictly enforced; (3) money earned by prisoners be applied to the relief of their families, and that employment of prisoners be increased when feasible; (4) the state and local systems of mental and tuberculosis clinics be further enlarged; and psychopathic wards in general hospitals be further developed; (5) the principles of mental hygiene be taught in colleges, medical, law, and divinity schools, police training schools and the like; (6)

health education be emphasized in the secondary schools and colleges in order that adults may be prepared to guard child health; (7) facilities for the treatment of contagious diseases be increased; (8) funds be made available for developing a research program into the causes, prevention, treatment, and education of the physically handicapped child; (9) the state coöperate with the county administration of probation and a state-wide program for the extension of probation be developed.

Recommendations were also made that there be set up in the Department of Education a central bureau of pupil personnel guidance; that school boards and municipalities provide adequate play space and facilities for all age-groups; that public libraries, municipal and county, and school libraries, be adequately supported and promoted, and that greater use of libraries by children be encouraged.

To carry these resolutions into effect, a Continuation Committee on Child Health and Protection has been constituted and has held 2 meetings already. The practical results will be manifest during the next few years as recommendations of the conference are carried out through the coöperative efforts of existing state and county organizations.

To quote Dr. Potter: "The Continuation Committee will further the program of child health and protection, and will give publicity to the needs of all children so that there may be developed *the will*, on the part of the people of this state, to provide for their needs, in the unshakable faith that the childhood of the state is its most precious possession—an asset, in the interests of which, any sacrifice is supremely worthwhile."

If we, as physicians, believe in this program, and we can hardly do otherwise, we must begin at once to take a more active interest in its promulgation; and, as a society, we must announce official recognition of the work. We are asked, specifically, to coöperate in a review of the work of bureaus and departments of health, in this state, that deal with child health problems. This gives us the opportunity to participate, just as actively as we may desire, in a very important work. We

what awkward but soon became surprisingly effective. With experience has come the conviction that the process of stirring the people out of their lethargy and enlightening them, vaguely expressed in the magic word, "education," depends upon certain techniques of publicity and organization.

The molding of public opinion, the establishment of control machinery, the maintenance of treatment facilities and so on, involve procedures which are today fairly well standardized. Separate chapters of Part II deal individually with these methods. A few chapter headings will serve as examples: Adult Health Education; The Spoken Word; Child Health Education; Case Finding; Statistics and Surveys; Fund Raising.

Scientific Basis of Control

Part III addresses itself to the fundamental policies of the tuberculosis movement in the United States, one chapter of which deals with the scientific basis of the program of action. New discoveries have gradually influenced the movement. For example, at first little distinction was made between minute or gradual dosage of tubercle bacilli and massive dosage. Many fondly hoped that it was possible to control infection by such measures as those directed against spitting. Modern conceptions of infection have greatly modified this hypothesis.

The first postulate accepted today is that the tubercle bacillus, the sole direct cause of tuberculosis, is passed from man to man and from cattle to man. It is conceded that at least 90 per cent of infection is transmitted directly from one human being to another by sneezing, coughing, kissing, etc., and by direct contact with moist or dried tuberculous sputum. Dust-borne infection is probably of minor consequence.

The prevalence of infection rises gradually from infancy until at adult life it may include some 80 to 95 per cent of the adult population. Morbidity or actual disease, however, is relatively very low. A long interval usually elapses between infection and the manifestations of disease, but these are not uncommonly precipitated by collateral events in the life of the individual. The ultimate suppression of tuberculosis is held by some to be a possibility.

The events leading to disease follow a fairly definite sequence. The influence of heredity has been discarded, but the infant born in a tuberculous *milieu* can hardly escape severe infection. Casual contact accounts for most cases of milder infection. The first infection, if severe (but not

severe enough to cause immediate death) usually expresses itself in a primary focus, small or large, with involvement of the tracheobronchial lymph nodes. Concomitantly, allergy or sensitization is established. This physiologic-pathological complex is designated as childhood type of tuberculosis. The early pathology may disappear beyond recognition or it may remain latent many years, evidencing itself only by X-ray shadows. Very frequently, reinfection takes place in early adult life and, favored by circumstances that tax the resisting powers of the individual, the adult type of disease, characterized by destruction of tissue, may follow.

What of Immunity?

Whether infection will fortify the body against further inroads of the tubercle bacillus or predispose it to the adult type is dependent upon various circumstances and influences, some of which can be controlled. Acquired immunity is insufficient to protect the individual against disease if repeated doses or an extremely large dose of bacilli enter the body. The contributory factors of tuberculosis morbidity include anything and everything that adversely influence the health of man. Attempts to produce artificial immunity have not yet succeeded. At the present time, it seems unwise to extend the use of BCG, except for experimental purposes.

The treatment of tuberculosis is based on the assumption that rest, fresh air, good food, and freedom from worry, plus medical supervision, will bring about a natural process of healing. Climate has little, if any, specific value, but there is much to be said in favor of certain types of air conditions. Surgery and light are important adjuncts to the treatment.

On these general premises, the plan for preventing and controlling the disease is based. While alarm is expressed by some to the effect that the detuberculization of the population may produce a race of high susceptibility to tuberculosis, others hold that increased intelligence and eternal vigilance will protect against a recurring disastrous infection.

Part IV describes a number of illustrative programs and thus brings to a focus the general principles discussed in previous chapters. Throughout the book, the reader desiring special information is referred to original and pertinent sources with a discrimination born of the rich experience of the author.—*The Control of Tuberculosis in the United States*, P. P. Jacobs, Ph.D.

TUBERCULOSIS ABSTRACTS

A Review for Physicians

ISSUED MONTHLY BY THE NATIONAL TUBERCULOSIS ASSOCIATION

Distributed by the

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Number 2

THIS year marks the fiftieth anniversary of the discovery of the tubercle bacillus by Koch. That event gave intelligence and direction to man's attempt to master his age-old enemy. During the past three decades, the fight has become an organized one. The decline in the death rate has shown consistent acceleration, though a decisive victory is not yet within grasp. At this fitting period in the movement, P. P. Jacobs, veteran tuberculosis worker, gives us a lucid statement of the present situation in his book, "The Control of Tuberculosis in the United States." To give a balanced picture of the contents of this tersely-written volume on a very broad subject is impossible—a few highlights must suffice to suggest its general flavor.

PRESENT STATUS OF TUBERCULOSIS CONTROL

In 1889, Hermann Biggs, at the request of the Commissioner of Health of New York City, formulated a statement concerning the communicability of tuberculosis and outlining a plan of attack against it. Indifference and antagonism greeted the plan, for Biggs was far ahead of his time. The Commissioner nevertheless issued a circular on "Contagious Consumption," and this marks the first step in the educational campaign. Four years later, Biggs' original report formed the nucleus of a more complete scheme. The struggle to secure its adoption was tedious but succeeded at last.

Briefly, the program recommended included (1) education of the public, (2) compulsory reporting of cases by public institutions and the recommendation that physicians report private cases, (3) home visitation of patients, (4) the provision by general hospitals of separate wards for tuberculous patients, (5) the provision of a "consumptive hospital," (6) the establishment of laboratory facilities. In time, other measures, such as public health nursing, clinic service, organization of voluntary associations, sanitary measures, etc., were added. The compulsory notification of tuberculosis by all physicians and householders became law in 1897.

Meantime, Sir Robert Philip in Scotland was steadily establishing "The Edinburgh Anti-Tuber-

culosis Scheme," first proposed in 1887. His plan emphasized the need of searching out cases at home and pivoted about the out-patient departments of hospitals. This gave the movement in Great Britain a somewhat different trend but also influenced American thought. In the United States, the campaign was characterized by the participation of non-official agencies. Well organized health departments were few; there was need for leadership. The first voluntary organization was the Pennsylvania Tuberculosis Society, founded in 1892. Others followed, and in 1904 the National Tuberculosis Association came into being with Trudeau as its first president. The Sixth International Congress on Tuberculosis, held in Washington in 1908, crystalized opinion and unified the several efforts into a nation-wide movement.

Methods of Control

Part II of the book describes the methods employed in the control of tuberculosis. The most important premise of the founders was that an enlightened public opinion is essential in any scheme of tuberculosis control, and further that sound knowledge about the disease is the individual's chief protection. The keynote, therefore, was education. Early efforts in this direction were naturally some-

might, quite appropriately, be represented, as a society, on the proposed "research council". We hear much about the dangers, to private medical practice, of state medicine, and of the bureaucratic organization of medical work, and I believe that the only way to control the current of action in that direction, is to take part in the formation of plans that will meet future needs and demands. With our coöperation, in carrying out many of the resolutions of the Governor's Conference, there will not only be no danger to private practice, but, on the contrary, great aid to us by increasing our personal, intimate service as practitioners. The enormous amount of intelligent interest in health matters, and the scientific, social and economic effects of sickness, are quite startling. However, a very distinct note is heard through all the din, that in health or in illness, the individual physician, the general practitioner, is still the most valued friend of his fellow-man and, for that very reason, the physician must coöperate in movements which affect his work so seriously as do these which concern the health and protection of our children.

DISCUSSION

Dr. Stanley H. Nichols (Long Branch): This report of Dr. Johnson's constitutes a challenge to the medical profession of New Jersey. This Continuation Committee now comprises a number of laymen who are interested in "child health and protection" and 4 members of this Society—Drs. Johnson, Levy, Pollak and myself. There should be another member, and some of us believe that member should be the President of the State Medical Society, ex-officio, because matters will come up for consideration, concerning which it would be helpful to have an authoritative answer immediately from the profession.

We are hearing a great deal just now about *state medicine*; a *bogey* by which we should not be frightened, because *state medicine* is already here and it has been here for 20 years. It began with *school medical inspection*; was carried on with *state baby clinics*; went further with *workman's compensation* and *state tuberculosis clinics*. Those are, each and all, parts of state medicine. The problem is not how to get rid of state medicine nor how to keep it from coming among us, but how to adjust ourselves to new plans so that they may develop to the best interests of the public and the profession.

There are 3 principles that we should establish: (1) the medical profession always has and always will gladly coöperate with any group of citizens to give medical care to those who can not afford to pay for it; (2) public health movements are a community, a public, responsibility, not a responsibility of the medical profession alone, and all physicians doing any form of public health work

should be salaried; (3) all public clinics, of any nature whatsoever, must be restricted in service to those who are unable to pay a physician for those very services rendered at that clinic. Nothing is to be gained by fighting public health and welfare movements. They are moving more rapidly than our coöperative plans to meet them. Everything is to be gained by joining in these health movements, and by helping to steer them so that they will be adjusted satisfactorily to the people and the physicians.

I would recommend that the House of Delegates or the Board of Trustees make provision for state and county public relations committees to deal in each county with all welfare and health movements, to the end that public health needs be met by medical coöperation, and that the physician's living, and present position in the community be maintained; and that this step be taken now—during this meeting, so that we shall not lose a year in progress.

SINUS DISEASE IN CHILDREN*

EARL LEROY WOOD, M.D., M.Sc. (Med.),
F.A.C.S.,
Newark, N. J.

Sinus disease in children deserves our careful consideration if its existence as a distinct disease entity, its prevalence and serious effects are realized. Like otitis media in children, it is a condition interlocking 2 specialties, pediatrics and otolaryngology, because neither specialist can adequately handle the condition alone and each is dependent upon assistance from the other.

The reasons why sinus disease in children has been disregarded in the past are many: first, lack of realization that distinct sinuses exist, even in very young children; secondly, the definite difficulty of making an adequate rhinologic examination of the conscious child, because of lack of coöperation from the patient, small size of the nares, and inadequacy of those aids so easy and useful in the adult—transillumination and diagnostic lavage; and, finally, because there is a great tendency to spontaneous cure. Hygienic measures and removal of tonsils and adenoids cure so many that a diagnosis of sinus disease is not even considered. Frequently, the suspicion of sinus disease arises only when nasal obstruc-

* (Read at the 165th Annual Meeting of the Medical Society of New Jersey, Section on Pediatrics, Asbury Park, June 4, 1931.)

tion and discharge persist after removal of tonsils and adenoids. Profound constitutional disturbances demanding determined and minute elimination of every possible underlying cause may reveal the disease in the sinuses. It is no surprise to the otolaryngologist, nowadays, to be called to eliminate an ear infection that has been diagnosed by the pediatrician from the constitutional symptoms. L. W. Dean and his group, in Iowa City, McKim Marriott, M. L. Floyd, P. C. Jeans, A. H. Byfield, and a multitude of others, whom I will quote freely without further reference, have well taught the child specialist that otitis in infants may influence refusal of food, malnutrition with loss of weight, diarrhea, excoriation of the buttocks, anhydremia, and the syndrome of cholera infantum. Well, the next step is to realize that sinus infection can do everything to a child that otitis media can. Are not the nasal sinuses just off-shoots from the nose, lined by a mucous membrane continuous with the eustachian tube and the middle ear?

To what extent are the sinuses of the child developed? The maxillary antrum at birth is about the size and shape of a small bean, with its long axis anteroposteriorly. It grows to the extent of 2 mm. vertically and laterally, and 3 mm. in length, annually up to the ninth year, then more slowly until the fifteenth year, when its growth is completed. In the newborn, the floor averages about 4 mm. above that of the nose, coming to lie on the same level about the eighth or ninth year. The ethmoids are complete at birth and are relatively the most developed of the cells, but those cells continue to expand and invade surrounding areas. The most anterior, or the most precocious, grows up into the vertical plate of the frontal bone and forms the frontal sinus, which may be of important size from the fifth to the seventh year. The sphenoid is little more than an indentation on the body of the sphenoid bone, before the second year, but from the fifth to the eighth year it is extending back under the *sella turcica* and becoming clinically significant. It must be remembered that there is great variation in size and rate of development of the sinuses in chil-

dren and even marked asymmetry in the same individual. Roughly, it may be said that the ethmoid and maxillary sinuses are of clinical importance at birth, the sphenoid at about the fifth to the eighth year, and the frontal from the fifth to the seventh year. Of these, the maxillary sinus suffers most commonly and is most markedly affected.

As to the etiology of sinus disease in children, the predisposing causes are, as in the adult, whatever interferes with aëration and drainage, with bacterial infection always the final factor. However, there are other factors that disarrange the mucosa and make it susceptible to bacterial invasion, namely, vitamin deficiency and allergy. In considering local causes, chief place must be given to diseased tonsils and adenoids. Cure has been reported in more than 80% of cases by removal of tonsils and adenoids, without other measures. Other important causative factors include acute infections, especially the exanthems; sensitization rhinitis, with attendant swelling and blocking; metabolic disorders, with unhealthy, boggy, nasal mucous membranes, especially if due to deficiency in the fat-soluble vitamin.

Here, let me say more than a word against that apparently innocent pastime and cause of so many otorhinologic disorders, swimming.

Practically all of the cases I see in the summer vacation period give a history of swimming just prior to the sinusitis. There are 2 ways by which the sinuses become affected; by infected water passing directly into the nose and sinuses; or, by washing infection from the already infected nasal mucosa, as in acute rhinitis, into the sinuses. I have always felt that, fundamentally, man is not intended to be an amphibian and water does not agree with his nasal mucous membrane. I understand that real amphibious animals have a valve that closes the nares when swimming. Man has no such protection, and water has a destructive action on the cells, causing edema, loss of ciliary activity and death. Moreover, the natural secretions which inhibit the growth of bacteria are washed away. Add to this, trauma to the nasal mucosa from forcible inrush of water, as when jumping into water

from a height, chilling of the body if the water is cold, or remaining in a wet bathing suit until the body becomes thoroughly chilled; and you have the ideal conditions for development of sinusitis. Long periods of swimming in cold water, too, produce a lowered body resistance which allows an inactive nasal infection to develop into an active disease.

What are the symptoms of sinus disease? I have already hinted at a few simple ones, such as obstruction and discharge. Let me add excoriation of the nares and upper lip, posterior discharge after adenoids are removed, persistent mouth breathing, frequent colds, cervical adenitis, chronic laryngitis with attacks of croup, cough of the spasmodic type simulating whooping-cough and most pronounced at night, edema of the eyelids, and sometimes even orbital cellulitis due to extension of infection through the paper-thin bone that separates the orbit from the ethmoid or through a dehiscence which is often present. Headache or pain is infrequent under 5 years.

While the infection may extend widely by continuity, producing serious complications the treatment of which is frequently surgical, I feel that you are more interested in the pediatric view-point and will stress the influence of sinus disease in infants and young children upon certain systemic conditions. Infected sinuses may serve as true foci of infection with distant metastatic or toxemic effects. They are, after tonsils and adenoids, the most important focal infection areas during the early years. The following conditions in infants and young children may result from a focus of infection: cardiac lesions, rheumatic fever, chorea, nephritis, pyelitis, certain cases of cyclic vomiting, deforming peri-arthritis, anemia, anorexia, malnutrition and chronic digestive disturbances. The focus of infection may be in a paranasal sinus. Remote effects more or less peculiar to paranasal sinus disease are bronchiectasis and asthma.

The systemic symptoms of acute otitis, especially those that are referred to the gastrointestinal tract, dehydration, diarrhea, loss of weight and food refusal, and the same clinical picture of cholera infantum or alimentary intoxication, with minor differences, may be

produced by sinus infection in infants under 2 years of age. The presence of one of these systemic complications of paranasal sinus disease immediately influences treatment of the infection. It is then much more important to eradicate the sinus infection than if the complication did not exist. Frequently the condition necessitates immediate control of the sinus infection, as, for instance, in cases of dehydration, diarrhea and malnutrition in infants. It often indicates the need of eradication, if possible, of the last vestige of the sinus infection; as in heart lesions and arthritis. Again, it may indicate need for conservative treatment of the sinus disease; as when associated with parenchymatous nephritis. Drainage of the sinuses by operative procedure should be postponed until the nephritis is controlled, if possible, because of the existing greater danger of postoperative septicemia following even minor operations. The presence of nephritis indicates need of careful examination of the paranasal sinuses and, if sinusitis be found, its complete eradication at a proper time. Treatment of the sinusitis may have a marked influence on nephritis with edema and albuminuria, for immediately following such treatment there is frequently a rapid disappearance of the edema and albumin, and a rapid increase in weight, when previous removal of faucial and pharyngeal tonsils had not produced a favorable result.

Sinus disease, if chronic, is not, as a rule, eradicated by local nasal treatment, but in infants and children it can frequently be controlled until the patient's condition is such as to allow surgical treatment. If the pediatrician refers to the otolaryngologist an infant with the cholera infantum syndrome, we should not stop with looking at the ears but should also examine the sinuses, remembering that sinus infection may, like otitis, cause the cholera infantum syndrome. Also, other acute infections about the nose and throat must be looked for. The condition commonly found along with this syndrome is acute otitis plus sinusitis. While any acute infection of the nasal sinuses can be eradicated by simple treatment, such as the use of ephedrine or argyrol in the nose, diet, hygienic conditions, etc., the control is

frequently not rapid enough to meet the situation. If, with this conservative treatment of the acute sinus infection, the pediatricist feels that the infant is becoming worse instead of better and there is no other source of infection than that of the maxillary sinuses, these sinuses should be washed out. This can be done nicely under light anesthesia without harm to the patient. The difficulty in treating infants with diarrhea, dehydration, fever, food refusal, loss of weight and prostration, is that we usually have an acute otitis and acute sinus disease, both present. Many of these babies are so ill that it is quite impossible to drain both—the ears and the sinuses—without producing a fatality, and it is only after careful consultation between the pediatricist and the otolaryngologist that the best method of treatment is chosen. As a rule, we are safe in doing myringotomy or mastoidectomy, as seems necessary, for the acute otitis, and treating the sinus disease conservatively. If, on the third day following active ear treatment by mastoidectomy, the otitis is progressing favorably, the sinus infection should be attacked energetically. Local treatment of any sinus disease is always indicated. Occasionally, after consultation with the pediatricist, it may seem advisable to drain both ears and a sinus immediately and at the same time, but when treating infants and young children there should be the closest contact between pediatricist and otolaryngologist; the opinion of the pediatricist as to the need of more energetic treatment of the sinus infection may be of more value than that of the otolaryngologist, as the pediatricist is likely to be a better judge of the seriousness of the patient's condition. He is not the better judge as to the otolaryngologic condition present nor of the results to be secured by nasal treatment, so there should be complete confidence in one another and perfect coöperation. Decision as to attacking the sinuses energetically, and as to the time when it should be done, is best made by the pediatricist. No rules are infallible and each patient should be studied by the pediatricist and the rhinologist together, and their "clinical sense" should determine the treatment.

Diagnosis is usually easily made on the symp-

oms, appearance of the nasal mucosa, transillumination, radiography and diagnostic puncture. Transillumination is of considerable value in older children, when allowance is made for normal variation, but is worth little in infants. The Roentgen-ray picture is most valuable and should be made before puncture, but diagnostic puncture is simple and its evidence most conclusive, especially if plate culture is made of re-aspirated salt solution, and microscopic examination be made for pus cells. I regard radiographs as the greatest help we have. When considering a differential diagnosis, remember nasal diphtheria and foreign bodies in the nose.

We should be more considerate of the possibility of preventing spread of sinus disease in the family. Little has been done by pediatricists or rhinologists toward preventing the mother, father, or nurse from infecting the children. One investigator has said that he found many children with respiratory infection whose mothers, fathers, and nurses were apparently healthy; but he had not found any child, whose mother had sinus disease or pulmonary infection, who was free of both upper and lower respiratory infection. Also, if one child in the family is infected, other children should be protected from him. This does not mean that he must be cast out from the family but it does mean that direct and indirect face and hand contact should be avoided. Attention should be directed to careful segregation of towels, face cloths, drinking cups, elimination of such playthings as horns, whistles, and mouth-harps; and, establishment of the rule, never kiss the child directly on the mouth.

Treatment of acute sinusitis is essentially conservative, and operative intervention is warranted only in the presence of threatened complications. The very first remedy of assured value is removal of tonsils and adenoids; and removal of the adenoids alone is not sufficient. If operation is not immediately feasible, conservative local treatment can be applied while waiting, and proper dietary changes should be instituted at once. A diet rich in fat-soluble vitamin A, together with an increase in vitamin B is desirable. The

absence of vitamin in the diet does not cause infection. From the time we are born until we die, we combat the streptococcus. Early in life, it is in the lymphoid tissue of the throat; later, in the sinuses. It is impossible to cut out all places which harbor the streptococcus.

Shurley has found that the structure, stability and growth of the bones containing the sinuses are dependent upon an adequate supply of vitamins A, C, and D, with a proper ratio of calcium and phosphorus. The pediatrician should determine the diet, considering not only sinus infection but sinus development, as well. There may be added sunlight, sun baths or treatment with the various lights. Many sinuses will clear up with no other treatment than having the patient moved to a warm, dry climate. The hot dry air treatment can be secured at home by Brunning's light bath cabinet, which is particularly suitable for older children. Dry heat shrinks the mucosa and permits better drainage without subsequent engorgement. After the constitutional treatment, attention can be given to local treatment, which is markedly diversified. After shrinking the nasal mucosa with ephedrine, one may apply a mild antiseptic, such as neosilvol or argyrol; cotton pledgets soaked in the medicine can be placed high up in the nares and allowed to remain several minutes. I find inhalations of steam very helpful; the benefit being more definite after the addition of tincture of benzoin or chloretone inhalant to the boiling water. The ease and safety of treating a little one at home with the modern electric vaporizers make available that plan. The crib can be covered with a sheet, like a croup-tent, and the vaporizer placed on a chair nearby.

Washing an infected antrum a few times will often produce surprising results. Different men have their pet antiseptic solutions for use in sinus lavage. For my own part, I use a slightly hypertonic sterile saline solution. Isotonic and hypotonic solutions cause the same cell destruction that I described when mentioning the bad effects of swimming. If an infected sinus does not respond to washings, suitable drainage and ventilation should

be established by means of a window in the antrum. I believe one should hesitate a long time before resorting to surgery on the sinuses of children, other than a small window in the antrum; and especially avoid radical surgery unless there are complications that demand immediate relief. In washing the antrums of very young children it is sometimes better to puncture through the middle rather than the inferior meatus. I have neglected to mention suction as an aid either to diagnosis or treatment. Undoubtedly, many find this procedure of value but it has rarely been of any assistance to me.

Many ethmoid infections extend to the orbit because the thin lamina of bone separating them is easily injured or there is a dehiscence present. Edema of the lids and moderate thickening of the orbital tissues occur not infrequently but will probably subside with energetic intranasal treatment. If sepsis is pronounced, or if damage, which will quickly become irreparable, is being done to the eye as shown by marked bulging or fixation of the globe, dilatation of the pupil or blurring of the optic disk, immediate drainage is imperative. This should be conservative but adequate. In the orbit, entrance should be gained through a curvilinear incision into or below the brow, the ethmoids or frontal sinus then entered and a drain inserted. The orbital tissues, unless invaded by disease, should not be opened. More radical procedures should be avoided or postponed until general and local immunity to the infection develops. It must be remembered that the young, vigorous tissues in children have great recuperative power and there are not the long-standing changes which lead to chronicity, as in the adult. Around the antrum, conservatism is also advisable since damage to the unerupted teeth is easy.

In closing, let me emphasize again that in the treatment of sinus infection a diet rich in vitamin A, together with an increase of vitamin B, is very essential. It does not, however, take the place of either the proper rhinologic procedures or observance of the usual hygienic regulations; these 2 things are equally important.

DISCUSSION

Dr. Henry C. Barkhorn (Newark): I am sure we will all profit greatly by Dr. Wood's judicious admixture of conservatism and keen surgical judgment. You will notice he emphasized the point, that in profound systemic infections, surgery, no matter how radical, may be justified, but, he also emphasized his statement, that our surgical results are more often disappointing than gratifying, and that is the main thing we have to remember. He emphasized the bronchiectatic cough, and there is no doubt that the largest percentage of those cases are due to sinus disease, but it is the sinus disease that gets well on relatively conservative treatment, making a window opening, at most, and not an operation that would cause any destruction of intranasal tissue. We must remember that there are 2 types of sinus disease, the empyema type and the type in which there are miliary abscesses, perhaps microscopic, but really abscesses, in the mucous membrane of the sinuses. The empyema type gets well, upon establishment of ventilation and drainage; the other type sometimes gets well on ventilation and drainage, but rarely, for it includes those patients who need the destructive operation, with exenteration of the sinus, and one must be careful about advising the patient to have such an operation done.

A diseased sinus is, as Dr. Wood said, one from which washings show either microscopic or macroscopic infection, and, suspecting real disease, one may go the limit in order to make the diagnosis. Saline irrigation, with a 5 c.c. syringe, and centrifugalization of the washings, is well worthwhile.

Dr. Chester R. Brown (Kearny): I would like to ask Dr. Wood whether, in helping to localize the trouble, he pays any particular attention to location of the adenitis, and, what significance he attributes, in these cases, to swelling under the jaw when there seems to be absolutely no evidence of disease in the mouth.

Dr. Joseph A. Clarken (Newark): Dr. Wood told us that his paper covered cases of real young children, and he really left the diagnosis of nasal obstructions to the pediatricist, unless the latter desired examination by a nose and throat man. I think Dr. Wood covered the subject very well.

Dr. E. LeRoy Wood (closing): I am extremely grateful for the charitable manner in which you have received this paper.

Dr. Brown brought up a point, regarding the location of adenoids. The chief point about adenoids in relation to the sinuses is, that drainage of the sinuses in young children is retropharyngeal. This is a point I neglected to bring out. When you treat a retropharyngeal abscess or a lymph-node enlargement, you should also treat the sinuses, because the main seat of trouble is there. The lymphatic supply, in relation to the nose and throat, is well described in Loeb's System of Operative Surgery, and the chapter written by George B. Wood, of Philadelphia, is the only adequate article on the lymph-glands in relation to nose and throat diseases.

ACCESSORY NASAL SINUS INFECTIONS IN CHILDREN*

GEORGE W. STRICKLAND, M.D.,

Roselle, N. J.

Reasons for development of the nasal accessory sinuses have been defined by various authors with varying theories. Killian believes that development of this area depends on the inherent, biologic characteristics of the cells. Coffin and Freres, however, explain the development on a physical basis, believing that the re-absorption of bone is due to variations in air pressure, particularly that of expiration; that the principal growth of the sinuses begins after breathing occurs; that there is a distinct similarity between the effects of air pressure on the sinuses and on the alveoli of the lungs; that there is a constant changing of air pressure in the sinuses; and, finally, that the direction of the inspired and expired air bears a relation to the anatomic formation of the nose. These authors point out that children who have adenoids present poorly developed sinuses, which they claim is because of the lack of normal air pressure in the nose during expiration.

Function of the nasal accessory sinuses has been a subject of considerable controversy, and no particular theory as to the physiology of these cavities has been accepted. Whether these cavities evenly distribute the inspired air, and thus help olfaction, is open to discussion, as is also the suggestion that the cavities and cells serve to lighten the bones of the skull and thus help to maintain proper poise.

Oppenheimer says the contention that they are an adjunct to respiration for moistening the inspired air is not supported by histologic findings, as there are no mucous glands in the mucosa of these cavities.

McKenzie, of Philadelphia, questions this statement and says that the sinuses do contain mucous glands, and that there are mucus-secreting cells.

* (Read at the 165th Annual Meeting of the Medical Society of New Jersey, Section of Ophthalmology and Otorhinolaryngology, Asbury Park, June 5, 1931.)

By a number of authors, the maxillary sinus is said to be well-defined at birth, and in the fetus it is found about the fourth month. It undergoes little change until the second dentition, and reaches the adult type about the twelfth year. According to Kohler, the maxillary sinus is visible at the second year. To support the claim of the early formation of this sinus, Dr. Emil Mayer, of New York, a number of years ago called attention to the frequency of infection of the antrum and ethmoid in the infant.

The frontal sinus is usually not developed until the seventh or eighth year. Before puberty, it does not extend far up in the frontal bone, but then a marked change takes place, until, in the eighteenth year, development is completed.

The sphenoid sinus may show a definite cavity as early as the third year, and, by the seventh year, it is well developed. This cavity deserves special consideration in relation to the development of obscure basal meningitis, as its lateral walls are largely within the cranial cavity, and also because of its intimate relation with the internal carotid artery and cavernous sinus.

According to Hajek, the mechanism of the development of inflammatory affections of the accessory sinuses is definitely known only in the traumatic inflammations and those propagated from neighboring tissues; since a great number of sinus inflammations originate from the direct influence of infections of the mucous membrane itself.

The question as to whether the sinus inflammations are extensions from the nasal mucous membrane, or appear from the beginning as inflammations of the sinuses, is of importance. Zuckerkindl is inclined to believe that the true accessory sinus inflammations are propagated directly from diseased nasal membrane; a theory supported by the anatomic facts that the mucous membranes of the nose and accessory sinuses are directly connected and have the same blood supply.

Other authors are opposed to this theory on the basis of clinico-anatomic observations, and are inclined to favor the theory of primary independent disease of the sinuses. Harke

denies Zuckerkindl's theory of extension of the inflammation in the adult but, strange to relate, concedes it in children. Hajek says, according to his observations on the living, he believes that direct extension of the inflammatory process from the nasal mucous membrane to the accessory sinuses usually occurs.

The sinuses are normally able to drain themselves, due to the fact that, although their outlet openings are not in every instance situated in the most dependent part of the cavity, their mucous membrane is furnished with ciliated epithelium which constantly wafts the cilia in the direction of the outlet. The normal openings of some of the cavities are in the most dependent portion when the head is in the upright position.

Drainage of the ethmoid tract may be simple or intricate. The individual cells may drain by opening into each other or directly into the nasal canal.

During, and following, the influenza epidemic of 1918, the observation at the Walter Reed Hospital was that the order of frequency in which the sinus involvement occurred was, maxillary, ethmoidal, frontal, sphenoidal. Evidently, Harmon Smith does not agree with this order, as in his paper of 1922 he says that the sphenoid is probably the most frequently involved but, being the most remote and most difficult of diagnosis, often escapes notice.

Sinusitis is said to be frequent in the infectious diseases of childhood, particularly in influenza, scarlet fever, measles and pneumonia. Antral sinusitis may also occur in the newborn, from infection by vaginal discharges or from injury as the result of instrumental delivery.

The ethmoid labyrinth in the older child is especially liable to become involved in all the inflammatory affections, and one author says that in the contagious diseases of childhood these cells are affected in practically every case, and he believes this accounts for the suppurative ethmoiditis in later life, which has really existed since childhood.

St. Clair Thomson, of London, says sinusitis in children can be divided into those cases that are due to a focus of infection in the adenoids, and those where the focus is

somewhere else. He states, as his experience, that a majority of cases of sinusitis in children, as well as a majority of cases of bronchial infection, are due to infection from adenoids. The consensus of opinion is that it is unusual to have a single sinus involved, to the exclusion of all others.

Recognition of sinusitis in the child is more difficult than in the adult, as the subjective symptoms are not so clearly defined. Transillumination is of value. X-rays are of great service, especially as regards the presence of pus in the antrum or frontal sinus. By some men it is thought to be the most valuable diagnostic help we have, prior to the tenth year.

Headache should always occasion suspicion of sinus inflammation, especially when the parts over the involved sinus are tender to touch.

McTiernan, of New York, says that a persistent headache, for which a child wears glasses without relief, is the characteristic headache which signifies a chronic sinus condition.

In acute sinusitis, pain is invariably present, but in chronic cases it is frequently absent unless secretions are retained under pressure. A symptom of great diagnostic value, when present, is the relief of pain upon the appearance of free nasal discharge, and a return of pain when the discharge lessens or ceases. Some authors place great value on the pharyngoscope for detecting posterior ethmoidal or sphenoidal suppuration.

It must not be forgotten that you may have bronchial disturbances, as well as otitis media, as a result of sinusitis; and also disturbance of the general health, serious orbital complications, thrombosis of the cavernous sinus, or meningitis.

After the nasal chamber has been cleansed, re-appearance of pus in the middle meatus is indicative of antral suppuration; and persistent elevation of temperature, extending over a considerable period of time, suggests sinusitis.

In treating sinusitis in the child, one's aim ought to be to destroy as little tissue as is consistent with obtaining permanent results and, if operative procedures become necessary, the

intranasal mucosa should be preserved in so far as possible.

Palliative treatment will permanently cure the majority of acute sinus inflammations, and previous to the employment of surgical measures, the use of warm alkaline sprays and a weak solution of adrenalin to reduce the congested mucous membrane; and if the case is severe, rest in bed, laxatives, and such general measures, may be indicated.

It should be remembered that the tendency of acute sinusitis is toward recovery. When possible, drainage should be obtained through the natural openings and, to accomplish this, it is proper to remove as much of the osseous tissue as is necessary, because free drainage must be secured before a cure can be obtained. If intranasal treatment fails to effect such a result, then, whatever radical operation is necessary should be performed. In children, the antrum rarely requires external operation, as opening the lower nasal fossa, with irrigation, is usually sufficient. Also, in young children, operative work on the maxillary antrum should be performed with great caution, on account of the relation of the teeth at that age.

Harmon Smith says that in acute cases, except where pus has broken through the wall of the ethmoidal and frontal sinuses into the orbit, operative measures are inadvisable, and by shrinking the nasal tissues adjacent to the sinus exit with cocaine and adrenalin, and then applying suction, followed by hot alkaline irrigations, the pus may be induced to flow. If frequent treatments are administered, the sinus ostium will regain its patency and infection will be overcome. He speaks of irrigation with a Douglass douche, then a mild suction, again the douche to wash out the pus sucked from the sinus, then, introducing into the sinuses such medicated solution as he considers applicable to the patient.

Coakley does not agree with Smith in the use of medicated injections; says he has never seen antiseptics or astringents do any good but has seen them do positive harm. In 1917, Smith was using a weak solution of iodine 0.5% and increasing the strength from time to time; later, substituting zinc sulphate, beginning with $\frac{1}{2}$ grain to the ounce and in-

creasing to 2 or 3 grains. That was the treatment to which Coakley objects.

St. Clair Thomson thinks that in treating sinusitis in children, the first thing to do is to remove the adenoid mass.

Dean, of Iowa City, says: "In connection with disease of the nasal sinuses in children, it seems to me there is one self-evident truth, and that is the point made by Dr. Thomson, that the first treatment is the eradication of the diseased adenoid tissue in the nasopharynx, which is the usual source of infection." He also referred to a series of 75 to 100 cases of sinus disease in infants and children under 12 years of age, where 4 out of 5 had been completely cured by the removal of adenoid tissue and asserted that in those cases no other treatment was given.

THE CREDULITY OF RHINOLOGISTS ANENT THE SINUSES*

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Credulity, if one may judge from one's own, necessarily limited, experience, is a trait common to all; and that it should invade the works of specialists who are, or pretend to be, exceptional, when contrasted with the mass, is less than passing strange. That it should prevail to such an obvious extent as is now the case, is little short of incredible when we lend ear to the proponents of the idea that scientific medicine has made vast strides in the past 2 decades. This may be true of other branches of medicine but it is far from true of ours.

So far as I know, there have been no outstanding achievements in the field of otolaryngology since Bárány announced his epoch-making labyrinthine discoveries, if we except those that may accrue to the work of Jackson, Eagleton and Skillern.

When one considers the reams of paper and quarts of ink used in the preparation of pa-

pers and text-books, and the loss of time spent in perusing such writings, the waste is little short of appalling. In the preparation of this paper I had occasion to review no less than 12 text-books by authorities, real and presumed, only to find that with minor changes, and those being mostly of a debatable nature, the modern tomes but echoed the most ancient.

An oft-repeated expression common to medical discussions that has annoyed me exceedingly, is the one certifying that the influence responsible for creation of the human animal has erred and that it designed certain anatomic structures for use through the period which—if we accept the evolutionary theory—found us enjoying the rôle of quadrupeds. This phrase is used, commonly, in association with drainage of the sinuses and particularly the maxillary sinuses. If the commonly accepted theories of physiologic sinus drainage were tenable it would have more merit, but I do not believe that they are, for reasons which I believe should receive passing attention, at least. The first of these, I called to the attention of this Section in 1928; i. e., it has been postulated and accepted that the maxillary sinus evacuates its contents only through the influence of the ciliary processes of the cells of its lining mucous membrane, the dependency of the ostium, in certain positions of the body, and consequent upon pressure from over-filling. I did not then think that "Dame Nature" was so stupid as that, and offered the suggestion that blowing the nose was a considerable aid in evacuating the contents of the antrum. In this connection, I stated that in the presence of a patulous hiatus maxillaris, or accessory maxillary ostium, one could evacuate his antrum, at least partially, if he closed both nostrils and blew his nose forcibly. In proof of this it was suggested that an experiment be tried; i. e., to puncture the antrum and convey a hose from the needle to a basin filled with water, and then have the patient, or victim if you prefer it, hold his nostrils shut and attempt to blow his nose—upon which, the fluid in the basin would be agitated by the egress of air through the nose. Since that time I have learned that a victim similarly placed can empty the basin by sniffing the

* (Read at the 165th Annual Meeting of the Medical Society of New Jersey, in the Section on Ophthalmology and Otorhinolaryngology, Asbury Park, June 5, 1931.)

water through his antrum into the corresponding nasal cavity, and I believe that this demonstration establishes the truth of the contention that there are more forces concerned in emptying the antrum than we have hitherto believed. I think, also, that the same forces act to favor ventilation and drainage of all the sinuses, but an excess of indolence has prevented me from trying to prove it.

Illustrations of loose thinking, and blindly accepting the traditional beliefs without question, could be prolonged endlessly, but I shall content myself with the citation of but one more; i. e., the common acceptance of pharyngitis, laryngitis, tracheitis, and bronchitis as primary inflammatory entities. I very much doubt that outside those of specific origin (tuberculosis, syphilis and the like), these are ever present, except where they are secondary to nasal infection and inflammation. This is amply attested by the presence of the lateral pharyngitis which always accompanies them and the fact that they are only relieved by nasal treatment or a natural healing process which is attended by profuse postnasal or antenasal secretion, or both.

In conclusion, I want to apologize for the oddity of the title and context of this paper, and to beg indulgence for the temerity displayed in assuming that the contained matter is not "old stuff" to all experienced rhinologists; but, I excuse myself on the ground that, in my opinion, the work of the thousands of rhinologists in America has brought paltry, if any, important results in the past 25 years. This is not as it should be, and it can only be the result of an inherent inability or unwillingness, on the part of most of us, to doubt or to think.

DISCUSSION OF THE PAPERS BY DRS. WOOD, STRICKLAND AND MCGIVERN

Dr. Charles H. Schlichter (Elizabeth): The "last word" on sinusitis is still a long way off. The reader of the first paper has given us food for thought. Undoubtedly, allergy plays a very important part in a large number of these cases, and I think that is particularly so in young children who have what the mother terms "repeated colds".

Dr. Strickland called attention to the early appearance of the sinuses. We have had, at the Elizabeth General Hospital, within the past year and a half, 2 infants suffering with purulent maxillary sinusitis: 1 child was 9 weeks of age and the other just a little over 3 months. Both were advanced conditions when the children were

brought in. One of them had a large swelling over the maxillary antrum and the other had perforated through the canine fossa. Both were operated upon and both got well. Those are the youngest patients with this condition whom I have personally seen.

I feel that the sinus infection, unless it be blood-borne, is always an extension from an infection of the nasal mucous membrane. I think that a great many children suffer from sinusitis, and that in some instances, where we have removed tonsils and failed to get the expected relief, if we had looked at the sinuses first it would undoubtedly have been unnecessary to remove those tonsils, at least at that time. The statistics recently reported at the International Conference on Pediatrics, at Copenhagen, are such as to make us sit up and take notice, for, if I remember correctly, about 60% of the tonsils removed showed no marked pathologic condition. In a number of youngsters, particularly approaching puberty, it has been noticed that the ethmoids are involved. We have seen a number of such patients and until I began to look carefully for ethmoiditis, I was not aware that it was as common as I have since found it to be.

In regard to infected adenoid tissue, I think we could well take a leaf from the book of the general surgeon, who is becoming more and more wary of operating in the face of an acute inflammatory condition. He is waiting and treating conservatively until the acute process has subsided, and then doing his operation.

As to diagnosis, I personally believe that in a large number of cases transillumination is of more value in acute infections of the sinuses than the radiograph, because if you have no marked thickening or tissue changes in the mucous membrane, x-rays will show you very little, but pus and the products of inflammation do obstruct light and a good transillumination will give you much more information.

As to the statement of another physician, in Dr. Strickland's paper, that a persistent headache for which a child wears glasses without relief is a characteristic headache which signifies chronic sinus disease, I would like to modify that by saying it is true only if the child has been *properly* refracted under a cycloplegic and its muscle imbalance looked into.

I believe that the pharyngoscope is a valuable instrument for the detection of acute sphenoidal sinusitis.

I believe, with Dr. McGivern, concerning blowing the nose; if you put a suction tube in one side, have a low vacuum, and then gently allow the air to come through the other side, you get the same mechanism as you do in blowing the nose or in sniffing.

I don't believe we ever do any good with drugs, such as iodine. It has been the fashion, like a great many other things we use, to keep on using it. I don't think its antiseptic action on mucous membrane amounts to anything, except that you may set up a general hyperemia, and you can do the same by suction. In acute cases, I believe that if you irrigate the nose with a mild alkaline solution, as an adjunct to suction, it is as good as anything you can use.

Altogether, I think we ought to look into (and that is the point I want to make) the general health of the child who comes with repeated colds and who has repeated attacks of sinusitis. If you put him in the hands of a good internist, a pediatrician who will build him up, you won't see much more of him for his sinusitis.

Dr. LeRoy Wood (Newark): I do not think the rhinologists deserve criticism, when you see the figures. Kern and Schenck, in Philadelphia, conducted an investigation of the incidence of sinus disease and I think they found about 100% of the asthmatics had sinus disease. I think that was largely due to the fact that the patients were mostly city residents.

For my part, I take a keen delight in seeing some normal sinuses. It is a pleasure. Recently, we had a patient in the clinic who had such a perfect picture of normal sinuses that every time she came in I took her into the dark room to see how pretty they were. I questioned her and found that she lived down here in Jersey. I believe there is something detrimental about our living in the city, especially in Newark, where we breathe air that is saturated with the gaseous end-products of industry—acid fumes mixed with dust. There are, also to be considered, the products of combustion from so many automobiles, and the figures on the incidence of sinus disease are tremendous. I think we would find things different if we practiced in the country. If our patients lived out in the open air, away from industry, away from city streets, or if they were sailors, we would certainly find a much lower incidence of sinus disease. We are very glad to see them when they don't have sinus disease.

Now, about drainage. We generally think that we spend our whole life in an erect position. You know, however, that about 1/3 of our life, and it would be more if we had our own way, is spent in a recumbent position, and I think we can consider that just as much a normal position as is standing up. There are lots of people who have chronic sinus disease, whose sinuses are draining. Every night they go to bed and, while lying down, their maxillary antrum is in a dependent position. It drains, and in the morning they have a stuffy nose. They get up, clear the nose and throat and they are all right for another period. So, it may be that was intended when the ostium was placed where it is. Certainly, a lot of people drain out their maxillary sinuses at night.

Suction is something that I have never used very much, because I think you could put a suction apparatus on the top of a glass medicine bottle and suck until the cows come home and never get anything out of it, but if you could put a little hole in the bottom of that bottle, you would suck everything out. There is another theory, which Dr. Pretz has referred to as displacement irrigation; if you suck a drop of air out, a drop of fluid will replace it. So, it may be with intermittent suction, air goes in and secretion comes out. It may have some value.

There is another point about washing. We hear a lot of different solutions. I will agree that the medication used in the solution for lavage makes little difference. You don't get contact sufficiently long. There is one thing that does make a difference and that is using a solution of a hypertonic concentration. We all say, "Irrigate with normal saline". I do not think that *normal* saline is the proper thing; it ought to be just slightly *hypertonic*; if it is isotonic or hypotonic, the cells absorb the solution and become water-logged, swell up, and are destroyed. If it is hypertonic, they will not absorb the fluid. For my part, I always use just a slightly hypertonic salt solution, without medication.

Dr. Harry V. Hubbard (Plainfield): I think we are growing to realize the frequency of sinus disease. Some years ago it used to be an exceptional

experience that we found any sinus disease. We have now become acquainted with the diagnosis and the frequency, so that we look for it in all cases, and I believe that there is far more sinus disease than we even now have any idea of.

As to treatment, my experience rather makes me feel horrified to see a patient irrigate the nasal cavity, at any time, in fact, but especially when he has an acute rhinitis, and yet I see patients who have been advised by physicians to irrigate the nasal cavity for those conditions, with all kinds of douches, but I want to emphasize this point—I think nasal irrigation should never be done except for *ozena*.

But, irrigation is, I believe, the most effective method of treatment for the antrum. I must repeat what I said 2 years ago in this Section, that I am not in favor of suction. I believe it does harm in acute cases and no good in chronic cases. As has been stated here, you cannot remove infected material by suction from "one hole in a bottle", but irrigation of an antrum is effective. It, I believe, should be done once in about 2 or 3 days, not too frequently, and not too long between treatments. We expect to cure every one of the acute cases of maxillary sinusitis with this method.

It is my method to irrigate them with boric acid solution and then introduce either a solution of 20% argyrol, or mercurochrome in 2% solution, and sometimes in 3 or 3½%; and I have found that the mercurochrome has been of greater value than argyrol. Whatever you use, the irrigation, I believe, is the most important thing.

Dr. Charles S. McGivern (closing): I have had very little experience in the treatment of sinus disease in children and have done little except remove adenoids, use neosilvol packs and prescribe a shrinking solution with an oil base. In a few cases I have irrigated the antrums, with benefit, but this is not easy in the very young though it is readily applicable in children of 6 years of age or over.

I give parathyroid and calcium in the allergies; whatever they may be. This form of medication seems to benefit children more than adults but I doubt if these patients ever have any more than temporary remissions because whatever they have they have it from their progenitors and they could only be helped permanently by having them re-born of different parents.

Now, concerning my own paper, and answering Dr. Barkhorn's objection that I am attempting to divert work from the laryngologist, I want to point out that I am opening up a new avenue for him rather than closing an old one. The type of ailment I have referred to is, now, very incompetently treated by the general practitioner who believes that the seat of these ailments is in the same area where the symptoms are manifested; i.e., trachea, pharynx, and bronchi, when, as a matter of fact, the primary inflammatory process is in the nose and the symptoms are a reflex manifestation of its irritative quality. I am not sure, however, that a great many rhinologists do not share the general practitioner's belief.

I cannot accept pharyngitis, laryngitis, tracheitis and bronchitis as primary conditions, if we except the neoplastic and luetic forms. Tuberculous laryngitis may be primary, but it is the generally accepted view that it is secondary to pulmonary tuberculosis. In considering this point, the thought has occurred to me that the incidence of tuberculosis of the larynx in association with pulmonary tuberculosis, of mild degree, might be in many cases due to the injury occasioned by the

removal of crusts from the interarytenoid area. This crusting is occasioned by a laryngitis secondary to a chronic sinusitis, sometimes involving all the sinuses but in the majority of cases limited to those of the posterior nares. The incentive for putting this argument forward lies in the observation that in practically all cases of tuberculous laryngitis there is a co-existent sinus disturbance of marked degree. Anyone who has seen the bleeding, tumefied area that is left following expectoration of one of those crusts, cannot fail to be impressed by the readiness with which a tuberculous implantation could occur at this site.

You will, naturally, expect some explanation for views which counter accepted ones, and I offer a fundamental bacteriologic answer. Bacteriology teaches us that for successful propagation, pathogenic microorganisms must have quiet, moisture, darkness and warmth. These conditions are fulfilled to but the mildest degree in the mid-respiratory tract, whereas in the sphenoid-ethmoid recess they pertain to the maximum.

In spite of the oft-repeated assertion, of both physician and lay patients, that they have a cold that began in the oropharynx and then traveled up into the nose, I do not believe that ever occurs. What, in all probability, does occur is that they get an infection in the sphenoid-ethmoid region and this, in the preliminary stages, causes a greater or less degree of swelling in the involved sinuses and, reflexly, we have the irritation communicated to the pharynx which manifests symptoms out of all proportion to its degree of involvement, and in this manner our attention is directed to it first, and for that reason we accept it as the primary site of the inflammation. Later, when the secretory stage is reached, the nasal involvement is sensed and we express the conclusion that the cold has traveled up into the nose. This is hard to believe when we take into consideration the fact that lymphatic and venous flow is in the contrary direction, and that few surface infections are blood borne.

During the 20 years that I have been interested in this work, this has been ignored by rhinologists. This is no more surprising, though, than the fact that most of us did tonsil enucleation for a longer period of time without understanding the anatomy of the tonsil.

In this connection, it might be mentioned that the lateral pharyngitis which presents in about 75% of the cases one sees in temperate climates during the fall, winter and spring, is nasal in origin, and it and the reflex cough incident to the irritation of the larynx and trachea, which accompanies it, can be relieved by nasal treatment alone.

Ten years from now (when it has filtered through to teaching rhinologists, that nasal obstructions incident to deviated septums, and concha bullosas are just as obstructive and just as harmful as those due to adenoids, and these obstructions are treated as early and as radically as normal development permits), we may find that chronic sinusitis will not be, as it now is, the common heritage of mankind.

Three years ago, at the Atlantic City meeting of the State Society, I read, before this Section, a paper in which I directed to your attention an accidental observation which had proved of great value to me in the diagnosis and treatment of antrum diseases; I refer to the testing of the patient's ability to ventilate his own antrums. This test is a simple procedure for rhinologists who treat antrum disease by irrigation, and gives one

information relative to the condition of the tissues in the region of the hiatus maxillaris not otherwise obtainable. All that is required to make the test is that a needle be inserted in the antrum and a hose led from the protruding end to a basin of water; if, now, the patient is instructed to hold both nostrils shut and blow gently, it will be found that in the presence of a patulous hiatus maxillaris the water in the basin will be agitated by the egress of a column of air which makes its way from the nose through the antrum. If the hiatus maxillaris is for any reason occluded, and there is no accessory ostium, bubbles will not show in the water. If we now reverse the process and have the patient sniff, instead of attempting to blow, the nose, we will find that in the presence of patulous openings into the sinus he can empty the basin of water through the antrum into the nose. The diagnostic, prognostic and therapeutic inferences are so obvious in this connection that I shall not further tax your patience by detailing them. In making the statement that this test affords information that is not otherwise obtainable, I am not unmindful of advantages inherent in the use of radiopaques in sinus diagnosis.

Dr. Charles W. Buvinger (East Orange): I hate to disagree with some of my honorable friends about suction. I think that suction has some uses and also can be very much over-done, but I do want to correct a misapprehension about suction, that you can't put suction on a single hole in a bottle and get anything out. If you think back to your days when you worked in a physical laboratory, and remember the old vacuum pump and the bottle, you will very well remember that that was the way a vacuum was produced in that bottle, by running the pump and sucking the air out. Of course, you don't create a perfect vacuum in the sinuses when you use suction but you create a negative pressure, and if you create a negative pressure, and you have a greater pressure, an atmospheric pressure of 15 pounds in the sinus, what is in the sinus is bound to come out.

I don't say that suction is always good, for certain patients will tell you at once that it pains and I think if they tell you it pains, you will act wisely if you stop, but there are other cases where you see a little pus in an ostium or up in the ethmoid, and you put suction on gently, with a tube, and you can coax it out. If you try it, I think you will be sure that you can do it, but if they tell you it pains, it is wise to stop.

Dr. N. W. Burritt (Summit): I have an idea to contribute to Dr. Wood. Some time ago an article appeared in Harper's magazine entitled "Megalocephaly", saying that the people of the United States were fast eliminating themselves by congregating in large cities, and one of the ways by which they can eliminate themselves is, apparently, by getting sinus infection in one of the larger cities. I recommend that you move out to the woods with us—I consider myself a rural personage—but, when you do move out there, don't throw away your sinus equipment, because you will still have need of it.

I have adopted the principle of not having any clinic work, because I don't believe that satisfactory work can be done in clinics. The 4 or 5 surrounding communities all bring their children from the schools, and from the nursing associations, to the offices of the rhinologists, where we examine them. We find that over 70% of the children brought with the recommendation of tonsil operation, given by the nurse or school physician, have

transilluminatory shadows in some of the sinuses, most frequently, of course, the maxillary. That leads us to believe that the sinuses are not free from infection out in the country and it leads us to believe also that there may be some connection between the frequency of occurrence of adenoid and tonsil inflammation and the frequency of sinus infection. Whether it is the result of allergy affecting the patients and then their having sinus infections, or whether it is the reverse of that, we do not know.

I think there is still a great deal to be said in this connection, whether the allergy produces the sinus infection or the sinus infection allergy.

Dr. G. W. Strickland (Roselle): I really haven't anything to add except in reply to Dr. Schlichter with reference to operating on adenoids, to say that of course we never operate on the adenoids if there is an acute inflammatory process.

BLADDER AND PROSTATIC CARCINOMA*

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Notwithstanding the fact that bladder and prostatic carcinomas are in close proximity, the history, pathology, course of disease and the prognosis are quite different. Bladder cancer makes itself known early by the symptom of hematuria. Prostatic cancer does not often bleed and then only when it has advanced sufficiently to directly break through into the bladder. Bladder cancer is rarely complicated by urinary retention, while in prostatic cancer this is often the chief symptom. Bladder cancer generally confines itself to the bladder for years; while prostatic cancer, in 95% of cases, has grown beyond the prostate when first seen; and 30 to 55% of the bladder cancers may be controlled by proper radiation for 3 or more years, while but 10 to 15% of the prostatic cancers may be so controlled.

BLADDER CARCINOMA

The treatment of tumors of the bladder is still in a state of evolution. Surgery, diathermy and radium have been, and still continue to be, contestants for honors. Surgical removal necessitates no special equipment other than that found in every well appointed

hospital. The radium treatment of malignant diseases is becoming more and more a problem that can best be dealt with in specially equipped hospitals. Radium itself is expensive and its proper use implies a certain amount of special training. In estimating radium results, I have classified my cases under papillary and infiltrating cancer types. If we, who use radium, could be in the position of the surgeon, and could have the entire tumor for pathologic examination, our statistical problem would be easier. As a routine, we attempt to get different portions of a tumor and particularly a portion of its base for examination. We have, perhaps, been too loath to dig deeply into the base of a tumor to get a specimen. We have thought that dissemination of tumor cells might result. So, we have believed that the clinical diagnosis should have the last say. If a tumor was sloughing, it was classified as a *carcinoma*, even if the laboratory diagnosis came back *papilloma*. If a diagnosis was returned *papillary carcinoma*, and an indurated base was felt at the time of open operation, or if radium-bearing needles when inserted into the tumor base met resistance and felt as though they were going through gristle, it was felt that the diagnosis of *infiltrating carcinoma* was justified; and statistical results go far toward proving this. There are some, however, who disagree with this point of view. For that reason I have given 2 tables in which radium end-results may be studied; Table 1, in which the diagnosis has been made *pathologically*, and Table 2, in which the pathologic diagnosis has been modified by the *clinical diagnosis*.

TABLE 1.—NINETY-EIGHT CASES OF CANCER OF THE BLADDER DIAGNOSED ON PATHOLOGIC OBSERVATIONS

	Papilloma with Atypical Cells or Papillary Carcinoma		Infiltrating Carcinoma	
	Number	Per Cent	Number	Per Cent
Cases	51		47	
Controlled	27	52.9	19	43.1
Controlled over 3 years	22	43.0	14	29.7
One year	2	...	2	...
From 1 to 2 years...	2	...	5	...
From 2 to 3 years...	1	...	1	...
From 3 to 4 years...	2	...	2	...
From 4 to 5 years...	3	...	2	...
From 5 to 6 years...	6	...	2	...
From 6 to 7 years...	1	...	2	...
From 7 to 8 years...	3	...	2	...

* (Read at the 165th Annual Meeting of the Medical Society of New Jersey, Asbury Park, June 5, 1931.)

	Papilloma with Atypical Cells or Papillary Carcinoma		Infiltrating Carcinoma	
	Number	Per Cent	Number	Per Cent
From 8 to 9 years ..	3	...	0	...
From 9 to 10 years ..	3	...	3	...
From 10 to 11 years ..	1	...	0	...
From 12 to 14 years ..	0	...	1	...
Not controlled ..	24	47.1	25	56.9
One year ..	11	...	12	...
From 1 to 2 years ..	9	...	7	...
From 2 to 3 years ..	1	...	2	...
From 3 to 4 years ..	1	...	1	...
From 4 to 5 years ..	1	...	1	...
From 5 to 6 years ..	1	...	1	...
From 7 to 8 years ..	1	...	0	...
From 9 to 10 years ..	0	...	1	...

In the first table, I have presented the end-results of 98 cases of cancer of the bladder with the diagnosis based solely on the pathologic observations.

In table 2, I have presented 127 cases of carcinoma of the bladder, the weight of diagnosis being given to the clinical rather than to the pathologic side.

TABLE 2—ONE HUNDRED AND TWENTY-SEVEN CASES IN WHICH WEIGHT OF DIAGNOSIS WAS CLINICAL RATHER THAN PATHOLOGIC

	Papillary Carcinoma*		Infiltrating Carcinoma	
	Number	Per Cent	Number	Per Cent
Cases	45		82	
Clinical and pathologic diagnoses agree ..	35		47	
Clinical and pathologic diagnoses disagree ..	9		35**	
Controlled ..	30	66.0	30	36.5
Controlled over 3 years ..	25	55.5	23	27.8
One year ..	1	...	3	...
From 1 to 2 years ..	3	...	2	...
From 2 to 3 years ..	0	...	2	...
From 3 to 4 years ..	2	...	4	...
From 4 to 5 years ..	6	...	3	...
From 5 to 6 years ..	3	...	3	...
From 6 to 7 years ..	3	...	4	...
From 7 to 8 years ..	2	...	3	...
From 8 to 9 years ..	2	...	2	...
From 9 to 10 years ..	5	...	3	...
From 10 to 11 years ..	1	...	0	...
From 12 to 13 years ..	1	...	0	...
From 13 to 14 years ..	0	...	1	...
Not Controlled ..	15	33.0	52	63.5

*Papillomas with atypical cells are grouped under this heading.

**In nearly all these cases the pathologic diagnosis was papillary cancer.

The discrepancy between the number of cases in these tables, 29 cases, is that in which no pathologic diagnosis was made. In a number of these a sloughing part of a removed

tumor showed no tumor substance under the microscope. A few were diagnosed by their failure to react to fulguration. In the largest part, no specimen large enough for pathologic examination was obtained, but the diagnosis of carcinoma was made because the tumor was sloughing.

In the first table, 43% of the papillary carcinomas remained under control 3 years. Table 2 shows 55% controlled 3 years. This discrepancy is undoubtedly caused by the inclusion in the second table of a number of border-line cases which lie between papilloma and papillary carcinoma.

There is no great difference in the 3-year controlled cases of infiltrating carcinoma, 29% and 27%, although it is interesting to note that those pathologically diagnosed give slightly better results.

A comparison between the results of the implantation of radium and the operative removal of cancer of the bladder is difficult because surgery selects cases that are operable and discards the rest.

At the Memorial Hospital irradiation has been given to every patient with cancer of the bladder in whom the cancer was believed to be confined to the bladder, no matter how large the tumor was. Therefore, in this series are included many inoperable cases. In a fair percentage of cases the tumor occupied 1/3 or more of the bladder. In these cases 28% were tumors whose bases were 6 sq. cm. or less. In 72%, the bases were greater than 6 sq. cm.

In 127 tumors, 81 (63%) touched or were adjacent to the trigon. Many of those patients would have required total cystectomy if operative removal had been contemplated. In 19 (15%), the location was on the base posterior to the trigon. In 18 (14%), the tumor was on the lateral walls and easily removable. In 1 (0.7%), it was on the apex. In 8, the site was not determined.

In the 63% of tumors touching the trigon, the operative mortality following surgical removal, if that had been possible, would have been between 10 and 20%, and a fair number of those tumors could not have been removed surgically.

DOSE OF RADIUM

One gold seed of 1 to 1.5 mc. to 1 sq. cm. of tumor should be used. I have put as many as 40 such seeds in a single, very large tumor. Considerable bladder irritation and some rectal irritation may follow this dosage (the latter if the seeds are near the rectum). The so-called radium burns may follow this administration. I have always worried more about the malignant nature of a tumor of the bladder than about a radium burn. It has been

rapubic implantation of radium, 4 patients died in the hospital, an operative mortality of 3.6%; 1 died of shock and hemorrhage, notwithstanding 2 blood transfusions; 1 of diabetic coma; 1 of uremia, and 1 of shock (a poor heart and old age contributed). A considerable number of these cases would have been classed as inoperable. Operative removal in the cases of this series which were operable would have been between 10 and 20%.

In doing the suprapubic implantation, spinal

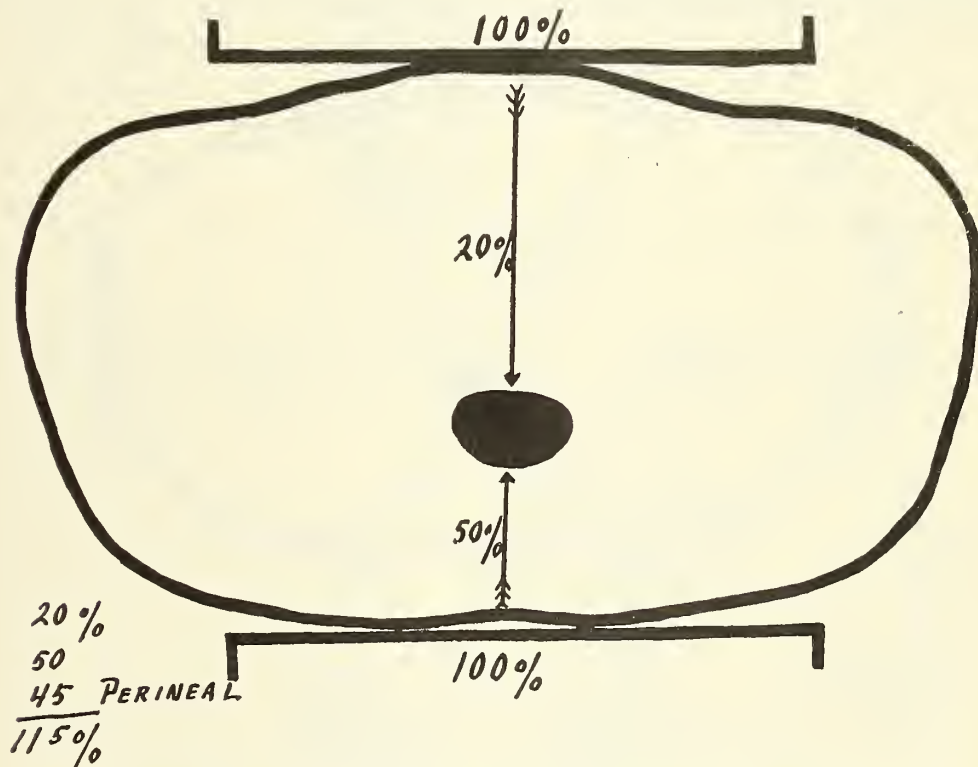


Plate 1—Showing actual erythema dose delivered by 3 exposures of deep x-ray therapy to the prostate (115%). Prostate is black ellipse in center.

calculated that between 10 and 15 erythema doses are necessary to control the radio-resistant tumors; and this is the reason why high voltage Roentgen ray therapy so often fails. It is difficult to get into the tumor by this method more than $1\frac{1}{2}$ erythema doses.

THE SUPRAPUBIC OPERATION

Finally, let me stress the decided difference between the operative mortality when a tumor is removed by surgery and when it is implanted with radium by the suprapubic route. In 109 consecutive personal cases of the sup-

anesthesia has been used. The bladder should not be mobilized. The abdominal wound should be thoroughly screened with gauze before the bladder is opened. Great care should be taken not to spill the bladder contents over the wound; a good exposure of the tumor is necessary; the Cameron light should be used for retraction and to illuminate the bladder; open wire retractors devised at the Memorial Hospital are useful for a good exposure of the tumor; the papillary portion of a tumor should be removed by some form of cautery; the radium implantation should be accurate;

a small suprapubic drainage tube (18 to 22 F.) should be left in place for a week or longer if the bladder is dirty or the radium dose is very large; the bladder is not sutured to the abdominal wall.

CARCINOMA OF THE PROSTATE

Carcinoma of the prostate still holds its place as the most baffling of urologic conditions. We know little of its etiology. In but a small percentage of cases is the diagnosis made sufficiently early to give any sort of treatment a fair chance of success. Even if

the posterior lobe, that lobe of the prostate which lies between the fascia of the bladder base and the fascia of Denonveilliers. The evidence of confirming this is: that in many cases the cancer lies fully beneath the urethra: that sections of the removed prostates have shown the growth to be wholly in the posterior lobe; that in both the lateral and median lobes, the sites of hypertrophy are found after removal to contain no cancer, yet cancer may be found in the posterior lobe. The cancer may start in the posterior lobe wholly between the 2 confining fascias and invade the lymphatics

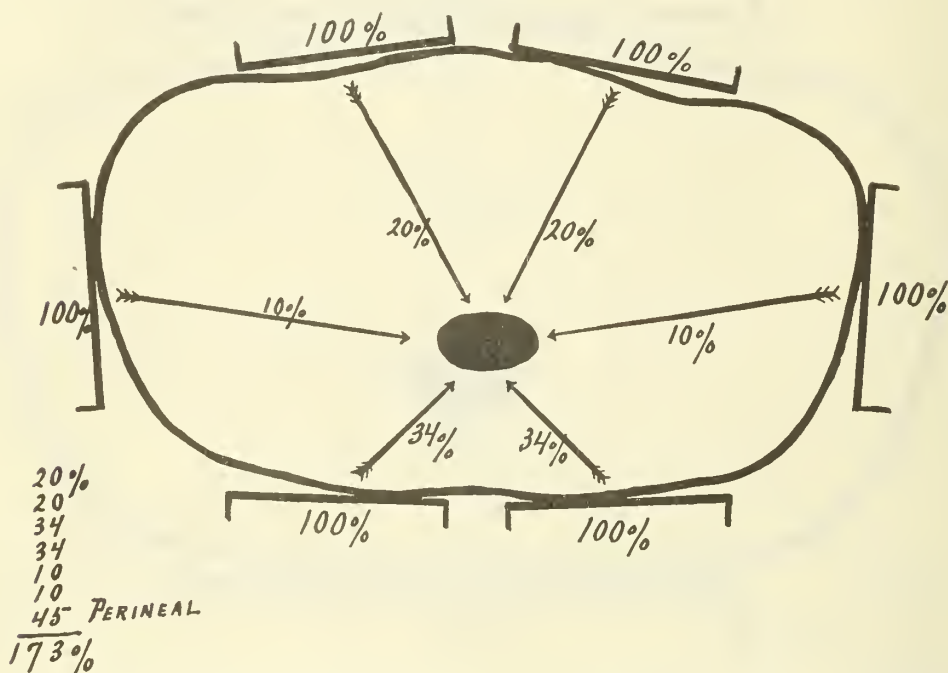


Plate 2—Showing actual erythema dose delivered by 7 exposures of deep x-ray therapy to the prostate (173%). Prostate is black ellipse in center

an early diagnosis be made there is no general agreement as to the best way to treat this neoplasm. We hold that the possibilities of radical surgery have been thoroughly exploited while the effective use of radiation is still far from the practical limits of its application to this disease. This paper is written in an attempt to analyze the reasons for the failures of the past, to discuss our present ideas on the subject and to suggest further improvement in control of the disease by radiation.

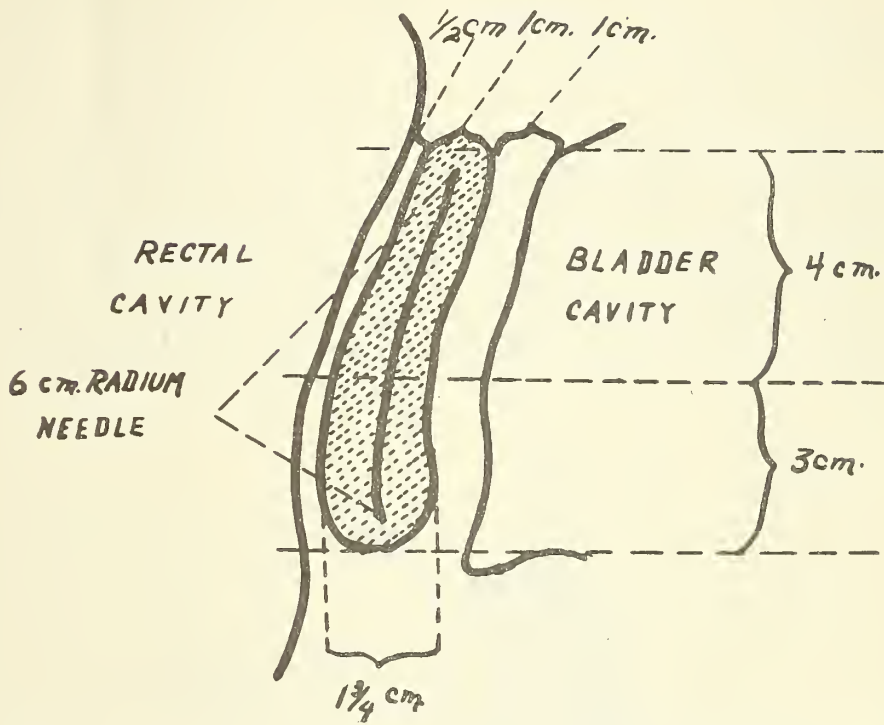
The anatomy of prostatic cancer. Young and Gerraghty first demonstrated that in the majority of cases prostatic cancer begins in

around the seminal vesicles and so on through to the pelvic nodes. Or it may invade the glands of Albarrann and the other lobes of the prostate or directly break through into the bladder.

Urinary retention, benign or cancerous in origin, may be a complication.

Of 315 cases of prostatic cancer, a punch operation was performed through the urethra for urinary retention in 79, and in only 51 (64%) was cancer present in the removed specimen.

In a minority of cases the cancer may be primary in the lateral and median lobes or



Lateral view showing prostate and perivesical region, which is the area to be radiated

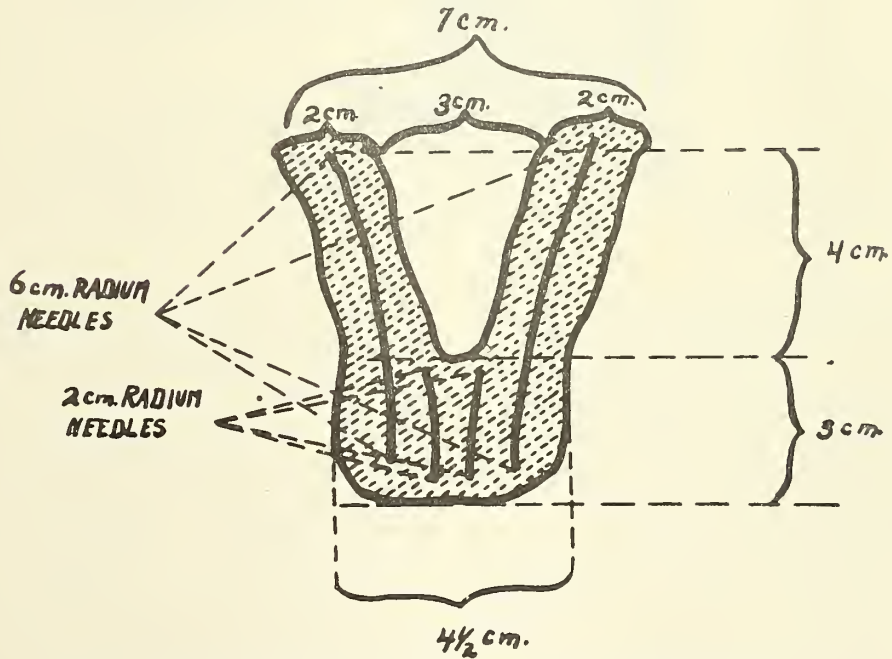


Plate 3—Anterio-posterior view of prostate and perivesical region

there may be multiple foci of origin in different prostatic lobes. The type of malignancy varies considerably. Grade 1, relatively radio-insensitive, is much the commonest type. The carcinoma may be confined to the prostatic and the periprostatic region for a relatively long time or it may invade the lymphatics very early and likewise the bones, most frequently those of the lumbar spine and pelvis. Cases in which the best results may be expected are those in which the diagnosis is not made previous to operation, and a small carcinomatous area is found in the removed prostate. It has

aspiration method as developed by Ferguson and Ellis. These cases are particularly favorable for radiation if there is no retention of urine to complicate the picture. The carcinoma is in one plane. The area to be radiated is shown in Plate 3 and after many experiences with different kinds and forms of radiation, I believe that this type is best radiated by means of needles implanted in the perineum with a guiding finger in the rectum.

The third most favorable class is that in which the cancer begins in the posterior lobe, invades the glands of Albarran, the other

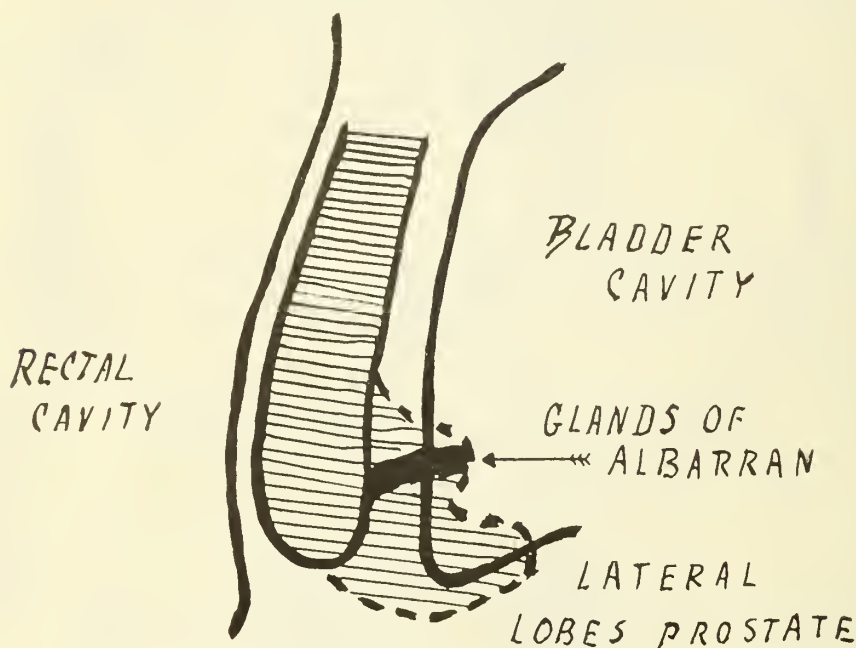


Plate 4—Lateral view showing carcinoma invading posterior and lateral lobes of prostate

been my experience in such cases that very few of them are cured by the operation. In most of them there are either foci or the carcinoma present in the periprostatic tissue or the manipulations of the operation are responsible for squeezing out cancer cells into the surrounding tissue. They, therefore, have to be closely watched for recurrences.

The second most favorable class includes those in which the carcinoma is, so far as can be determined, between the fascias of the bladder base and that of Denonveilliers. In these cases the diagnosis can generally be made by palpation and this should be confirmed by the

lobes of the prostate, and finally breaks through into the bladder neck itself, is not large and is confined to these areas. Plate 4—This type is to be attacked by the suprapubic operation and the implantation of radium seeds. In these cases the original plane of Class 2 is complicated by addition of the third dimension and it is sometimes impossible by our present methods to radiate effectively all of the carcinomatous area. Ferguson, of our Staff, has devised an instrument of precision for implanting gold seeds into such a prostate. This promises much and may be a final solution. If there is no definite invasion of the

glands of Alborrann and the rest of the prostate, and no retention of urine, I am very loathe to open up the bladder, for that increases our mortality by probably 4 or 5% and if it only increases our percentage of cures by a like percentage we gain nothing. If urinary retention due to carcinoma complicates the picture, a suprapubic operation is indicated. The obstructed portion should be most carefully dealt with and the tearing operation, by means of the finger, should be avoided because it tends to disseminate the cancer. Some sort of a punch operation through the suprapubic wound is, I believe, better.

Rectal irradiation does not produce good results for me. The rectal mucous membrane is more affected than the prostatic cancer, and the after-results of such radiation are apt to be painful and even dangerous.

Deep Roentgen ray therapy is ineffective so far as control of the cancer is concerned [shown by charts 1 and 2]. By this method the maximum dose in the prostate cancer itself is less than 2 erythema doses and personal experience has shown that most prostatic cancers, as is the case with bladder cancer, require probably 10 or more erythema doses to effect control. On the other hand, if you are talking about symptoms and not control of the cancer, deep x-ray therapy is valuable. Pain may be immensely helped and bone metastases may often be definitely checked.

Summary of irradiation. Prostates of the irregular size, and from 1 to 1.5 cm. thick, are radiated by gold screened needles placed through the perineum. Such a prostatic cancer will tolerate from 1000 to 1500 millicurie hours of radiation, which is to be repeated in from 2 to 3 months. The primary radiation apparently does not make the second radiation less effective. If there is retention of urine, due to fibrous constriction or benign hypertrophy, this should be dealt with as a separate entity. If there is retention of urine due to prostatic invasion of the bladder neck, a suprapubic operation should be done; the obstructing portion punched out and the remaining cancer implanted with gold

seeds of a strength 1 to 1.5 mc. to each cubic centimeter of cancer.

If those methods are used, we can control between 10 and 15% of prostatic cancers.

DISCUSSION

Dr. S. R. Woodruff (Jersey City): The President assures me that time is the essence of this contract, so I am going to be very brief about it. I am going to say that you have listened to one who has probably done more work in the radiation of bladder tumors than anybody else in this country, and, therefore, you have listened to one who knows what he is talking about.

We started some years ago, at the Post-Graduate Hospital, to do work of this type. We had no radium except what we rented or bought, and our results were extremely disappointing, so disappointing in fact that we gave it up entirely. The only thing that has made Dr. Barringer's statistics good, and his work improve, is the fact that he has had plenty of patients and plenty of time and plenty of radium to work with. His early results were just as bad as ours. The only other thing is, he has had the tenacity and the opportunity to stick to it; and he seems to believe in it.

My own ideas in regard to bladder tumors are, that anything that radium will destroy in the bladder can also be destroyed by other means as well. The development of a technic in instrumental treatment of bladder tumor is worth-while. Anesthetization of the patient, and employment of large electrodes when using the high frequency current, have marked advances in our treatment of bladder cancer. In my teaching, I take a very safe ground concerning bladder tumors. I claim that they are all potentially malignant. Some are more malignant than others, just the same as tumors elsewhere in the body. We believe that an increase in the stem of a bladder tumor is a sign of increase of its malignancy; i.e., that a common, ordinary, pedunculated papilloma has very little malignancy, and such a tumor can be successfully destroyed through the cystoscope by the high frequency current in about 95% of patients. Such growths may recur, but the recurrences are usually no more malignant than the primary tumor.

As the tumor increases in size and its base broadens, the question arises as to the next procedure; whether to try destruction through the cystoscope, or by suprapubic operation, or by excision. Such a discussion brings one to the point of the experience of the operator. After going through a long number of years treating bladder tumors, one gets to the point where he feels what is the best thing to do with each individual, and such procedure would naturally be up to the individual operator.

I was glad to see the large percentage of controlled cases reported in infiltrating carcinoma of the bladder. It is exceptionally good.

I forgot to say, that in using radium I fear there is going to be considerable trouble brought on with the populace and among members of the profession at large, by the indiscriminate use of radium. Anybody can go to the advertising radium companies and get all the radium he wants, and can use it, many times without the slightest knowledge of what he is using it for or how to use it.

In prostatic cancer, we are faced with a different problem entirely. The prostatic cancer is, we might say, the bugbear of the urologist. I have very seldom seen an early type of prostatic cancer. I have

never diagnosed it early enough so that I thought operative means would cure it. The reason for that, I believe, is because they are practically symptomless for a long period of time. I do not associate prostatic cancer with prostatic hypertrophy because the vast number of cases of prostatic cancer show very little actual adenomatous prostatic change. The obstructive urination is caused by the narrowing of the urethra and by the presence of submucosal glandular enlargements and cystic masses which form around the sphincter. I have removed so-called and supposedly hypertrophied prostates which the laboratory reported contained carcinomatous material, and they were so designated as carcinomas of the prostate. I hadn't the slightest knowledge of their presence at the time of operation. These have gone on over a great number of years without recurrence of malignancy. One of them evidently has a recurrence but 10 years have now passed and he doesn't know it. His prostatic bed feels hard and indurated but he shows no symptoms. He evidently has a recurrence but it is of a very mild type and it will probably not cause his death. The others of that series have had absolutely no recurrence in any portion of the body. The treatment of prostatic cancer is beyond me. The only thing from which I have found any result has been—in contradistinction to Dr. Barringer—where obstructive urination became so great that the patient could not urinate or could only urinate with great difficulty. I have put in a suprapubic drain and by means of a Pezzar catheter, changing it month after month, and sometimes year after year, obtained great relief. The fact that the patient does not urinate causes the cancer to become less active. It puts the floor of the bladder at rest, and the patient may go on for several years.

Dr. Benjamin S. Barringer: Just one word. I entirely agree with Dr. Woodruff. There are certain cases that can only be handled by means of the indwelling suprapubic catheter. I didn't read all of my paper and I omitted that point. There are certain patients you can't make urinate, and for whom you can't do anything except put in the suprapubic drain.

MEDIASTINAL TUMORS; REPORT OF 3 CASES

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This paper is to constitute a report of 3 cases of mediastinal tumor observed by me during the past 2 years.

Case 1. The first patient was a man, 55 years old, who consulted me March 10, 1931, complaining of having a dry, unproductive cough for 1 week and that his breathing was becoming increasingly difficult. His hands and face had begun to swell. He had never had any complaint regarding his chest and at the

onset of these symptoms consulted a physician who gave him medicine, but his condition became much worse.

Upon examination, the man appeared well nourished, weighing 219½ lb. His entire face, especially the upper eyelids, looked swollen and cyanotic. The veins of his neck were distended. Both his hands were swollen; the right predominantly. There was no edema of his feet.

Examination of his chest showed a mass of semi-solid consistency, about the size of a plum, both palpable and visible above the right clavicle. Percussion showed dulness over the entire right side and lower left side, both anteriorly and posteriorly. The cardiac area could not be outlined because of this dulness. Auscultation of the chest on the right side revealed bronchial breathing in the mid-part posteriorly and râles were audible at the base both anteriorly and posteriorly, but no breath sounds could be heard elsewhere on the right side. On the left side, there was bronchial breathing with râles at the base and vesicular, or bronchovesicular breathing in the upper part. On auscultation, the heart sounds were distant, of regular rhythm, rate 100 per minute, and without murmurs. Blood-pressure was 146/90.

X-ray examination showed the left border of the heart more lateral than normal. The upper mediastinum was covered with a dense shadow about the size of the palm of a man's hand. The entire right lung was also covered with a dense shadow except for 1 small area at the base and another small area at the apex; these 2 areas apparently containing air. The shadow of the right lung was continuous with the shadow of the upper mediastinum.

The temperature was normal. Urinalysis did not show albumin.

A diagnosis was a neoplasm of the chest, most probably a neoplasm of the right lung with metastasis into the mediastinum. In order to verify the diagnosis, a small piece of tissue was removed from the mass above the right clavicle, but that bit of tissue did not show any pathologic change.

On March 12, 1931, I referred the patient to the Memorial Hospital in New York City.

There, he was examined by Drs. Hoffman and Craver. The physical findings were essentially the same as previously stated, but Dr. Hoffman's diagnosis was tumor of the mediastinum, and Dr. Craver said he could not decide whether the tumor was primarily a mediastinal or a lung tumor.

beth Hospital, in Elizabeth. His breathing became more and more difficult; the swelling of both hands and of the face increased; and the patient died on March 22, 1931.

Consent for an autopsy of the chest was obtained, and it showed a large mediastinal tumor, with secondary involvement of the

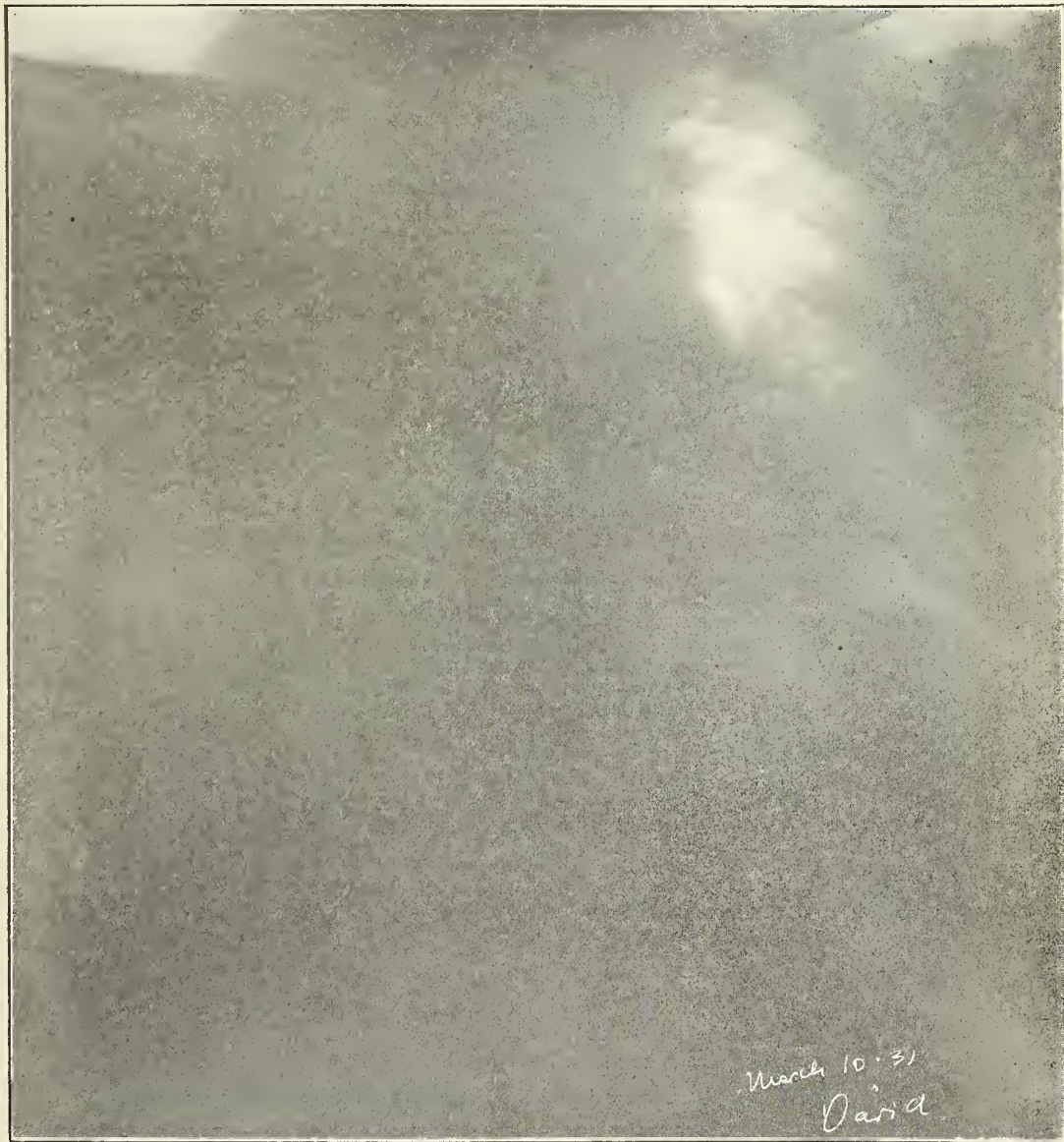


Fig. I.

The patient was supposed to be admitted to the Memorial Hospital when an empty bed became available. Meanwhile, the patient came home to Elizabeth. His condition became so bad on March 16 that he could not be kept at home, and was admitted to the St. Eliza-

right lung; microscopically, a sarcomatous growth, and the type of cell was the small lymphocyte. Dr. Casilli, who performed the autopsy, was of the opinion that the growth was a lymphosarcoma.

Case 2. Mr. X., 43 years old, was first

seen by me in April 1930. Except for a dislocation of the shoulder he had never been ill. His chief complaint was swelling of the face, and irritating cough of one week duration. Examination showed the whole face, but most

An anteroposterior radiograph showed a tumor mass occupying the area of dulness, and a lateral x-ray picture showed, after the patient had some barium suspension, that the tumor compressed the esophagus. Blood count

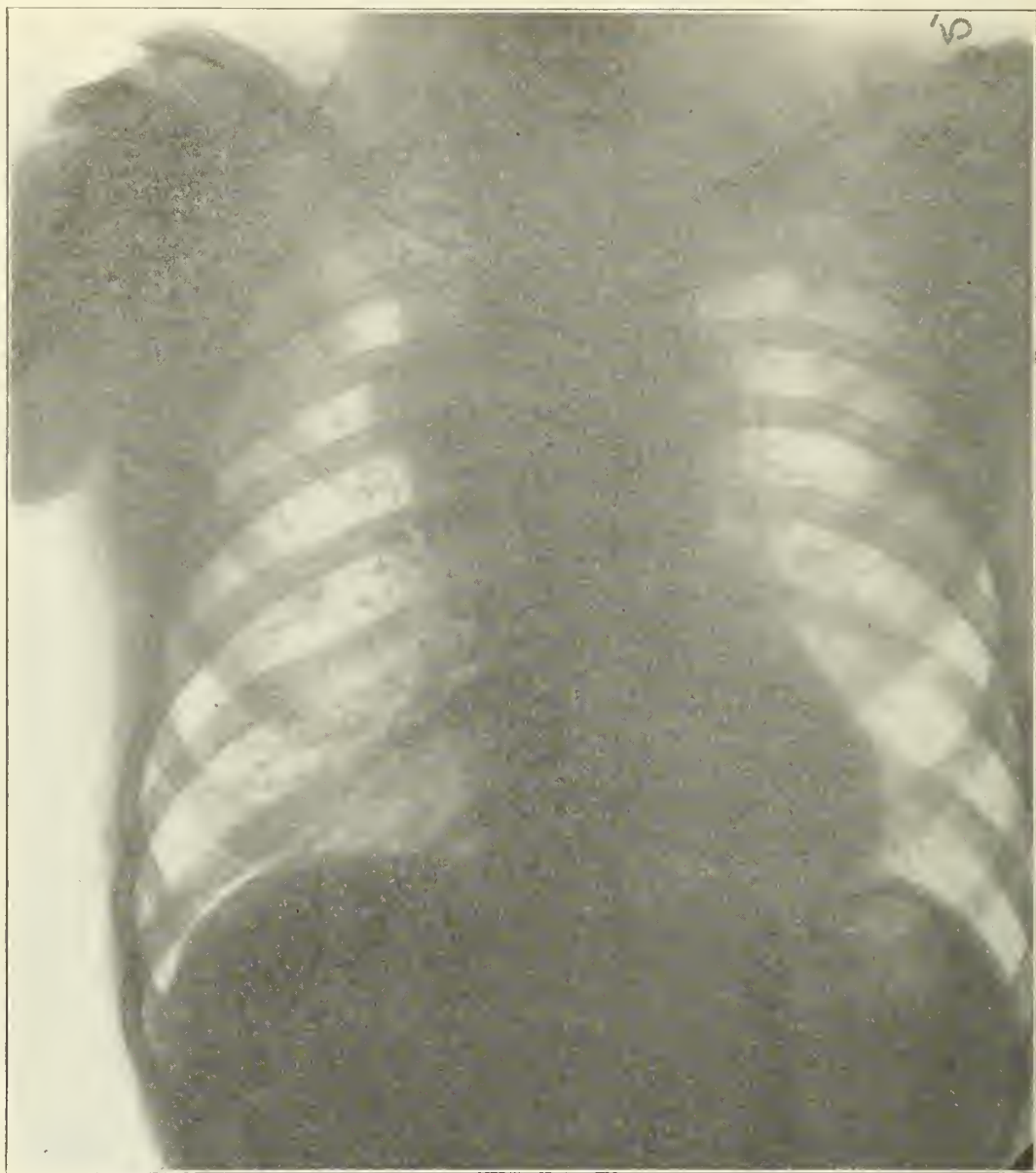


Fig. 11-A.

markedly the upper eyelids, edematous. The neck also was swollen, with numerous large distended veins visible on the neck and chest. The incisura sterni was filled with a mass. On percussion, an area of dulness about the size of a palm was found over the upper mediastinum.

showed moderate anemia with 11,200 leukocytes and 83% neutrophils.

Deep x-ray therapy was instituted and after 6 weeks there was considerable improvement; i. e., swelling of the face and neck had disappeared, the venous engorgement became less, and cough was gone.

This patient did not report for further examination or treatment.

Case 3. Mrs. V., 80 years old, was seen by me in February 1931. Her chief complaint was shortness of breath and dizziness. She

ness, the size of the palm of the hand, over the upper mediastinum. The urine did not contain albumin. A lateral x-ray picture showed the upper anterior mediastinum free of any process which would cause a shadow,



Fig. II-B.

had a dilated heart, blood pressure 160/80 and pulse 100. The face, upper eyelids, and both lateral cervical trigons showed swelling which had disappeared sometimes for 2 or 3 days and then re-appeared. There was an area of dul-

as was true also of an anteroposterior exposure, but a lateral displacement of the trachea could be demonstrated.

This patient did not come for further examinations.

In these 3 cases swelling of the eyelids and of the face, shortness of breath, and dulness over the upper mediastinum were the features which led immediately to suspicion of mediastinal tumor. The diagnosis can usually be verified by radiography and sometimes by biopsy. The literature shows that x-ray pictures of the chest taken for some other reason will occasionally reveal a mediastinal tumor. In some cases, biopsy of a metastatic gland, or in

ments which can be passed through the sheath to obtain a biopsy specimen; 1 of these is constructed like a screw, another has an excavation with sharp edges at the side near to the end, and another has a conical tip, with the base of the cone turned toward the outside, the base having cutting edges. After obtaining the specimen with one of these instruments, the sheath is connected with a coagulating current and during withdrawal of the

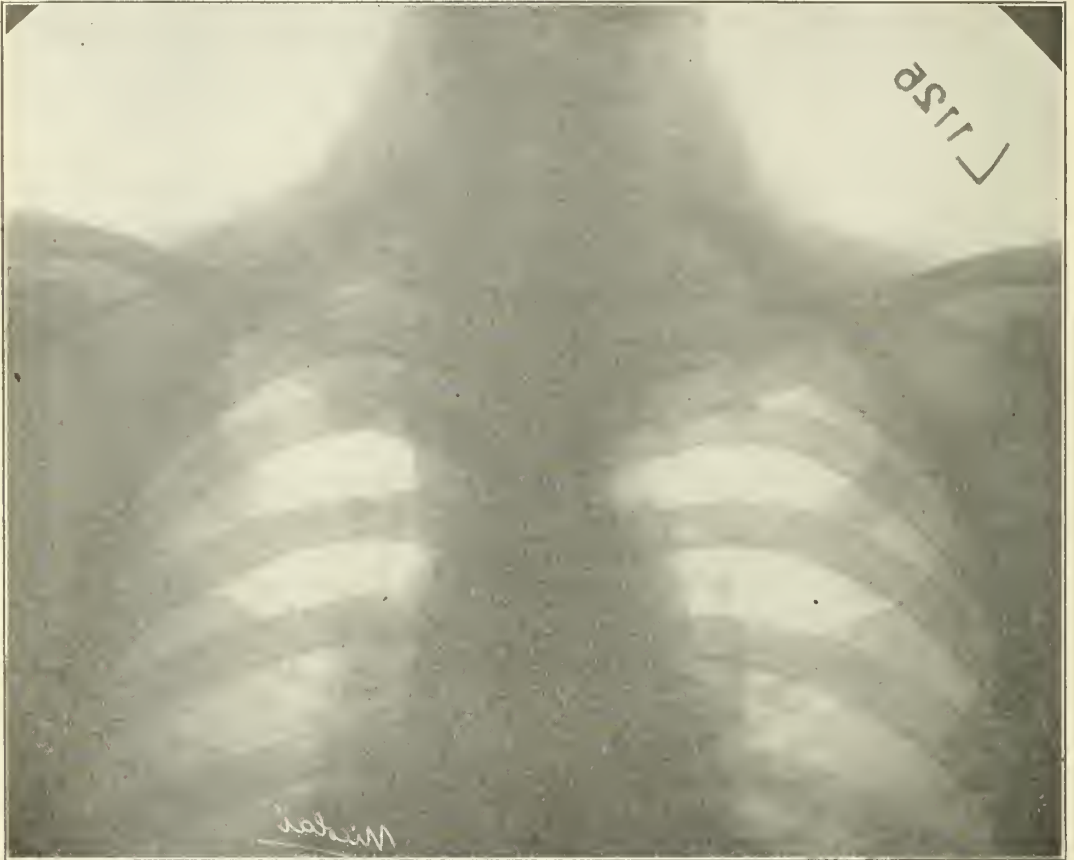


Fig. III.

a few cases, a section out of the tumor itself, will render a histologic diagnosis. Dr. Hoffman, from the Memorial Hospital in New York, has constructed an instrument with which biopsy specimens can be obtained very easily. It consists of a hollow sheath, of diameter slightly over 2 mm., electrically insulated except for a narrow band at the end. Closed with an obturator this sheath can be inserted into the tumor, after which the obturator is withdrawn, and there are several small instru-

ments which can be passed through the sheath to obtain a biopsy specimen; 1 of these is constructed like a screw, another has an excavation with sharp edges at the side near to the end, and another has a conical tip, with the base of the cone turned toward the outside, the base having cutting edges. After obtaining the specimen with one of these instruments, the sheath is connected with a coagulating current and during withdrawal of the

Mediastinal tumor being present, the diagnosis is not difficult if one but remembers its possibility; it will be more difficult to decide whether the mediastinal tumor is primary or secondary in cases with concomitant lung involvement. Diagnosis as to character of the tumor might be difficult, for there is 1 case on record in the Memorial Hospital, in which

Dr. Ewing made only the diagnosis of probable thymoma out of the metastatic nodules, because the primary tumor was very much changed by radiation.

The therapy of mediastinal tumors is surgical in some cases, but usually radiation with x-rays or radium is preferable. Dr. Craver reports 1 case treated by radiation with very marked regression of the tumor, and the patient lived 2 years after diagnosis and commencement of treatment.

Dr. W. Sampson Handley reports a case of mediastinal lymphosarcoma, where the mediastinum was opened, necrotic tumor masses removed, and radium was placed in the tumor cavity. The patient improved temporarily but recurrences necessitated reinsertion of radium several times, and the radium treatment was later supplemented by x-ray radiation. His patient lived a fairly normal life for 4 years after the diagnosis was established.

Somewhere, I have read the report of a case, in which a bronchial fistula was made by operation on account of compression of the trachea. This way retrograde breathing was established, and the patient was relieved from his dyspnea, but, naturally, that could be only a temporary measure.

The prognosis of mediastinal tumors, due to their malignant nature and quick growth, is, as a rule, very bad.

MEDICOLEGAL ASPECTS OF SOFT TISSUE INJURY

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The problem of injury and its resulting incapacity has attracted considerable attention during recent years. The various industrial commissions and insurance carriers have appointed physicians proficient in the treatment of injuries, familiar with the sequels of trauma, skilled in the art of diagnosis, adept in the science of prognosis, and capable of evaluating and determining the residual path-

ology and permanent effects of industrial injury. Their duty is to determine whether a patient is suffering from disability which is permanent in nature, the amount of the disability expressed in the form of a definite percentage, and whether all or part of it was caused by a given accident. The evaluation of such disability is based upon a correct history, physical examination and mechanical measurement, supplemented by laboratory tests and x-ray findings.

Of late, it seems at times that clinical diagnosis has become a lost art. The keen eye, sharp ear, and delicate touch of the "old time clinician" have apparently given way to the test tube and x-ray film of the modern specialist. However, a few of the latter lay too much stress on bone injury and practically ignore soft tissue pathology, and a situation has developed wherein some examiners would not attempt to evaluate disability without seeing the roentgenologic report. If the latter discloses a fracture, permanent disability is presumed in spite of good union and perfect form and function. On the other hand, if the radiologist's interpretation is negative, the inevitable conclusion is that the man is a malingerer—despite a morbid process in the soft tissues not yet disclosed by x-rays. It is too often forgotten that a fracture *per se* does not necessarily imply permanent disability. As a matter of fact, bone is dominated by and subservient to muscle—which embraces a major portion of the soft tissues and constitutes about 45% of the body weight.

MUSCLES

Structure. Primarily composed of cylindrical fibers about $1\frac{1}{2}$ in. long and $1/500$ of an inch in diameter, each fiber has an elastic sheath—called the sarcolemma. The cylindrical fibers are collected into bundles and held together by connective tissue which is attached to the sarcolemma. These bundles, or fasciculi, are also held together by connective tissue and, collectively, form the muscle. The whole muscle is enclosed in a membranous sheath which is related to connective tissue binding the bundles. Thus, the muscle fibers are endowed with the power of producing motion, while the connective tissue element

is endowed with the power of elasticity and accommodation.

Repair of injured muscle. It is well known that the more highly specialized tissues are poorly, or never, replaced after an injury. The nerve cell—man's most highly organized cell—once destroyed, is never regenerated, and voluntary muscle—only a little less highly specialized—has hardly any power of regeneration. The process of repair can be summarized as follows: After an injury there is a local reaction, dilatation of surrounding blood vessels and a slowing up of the blood stream; fluid and cells exude through the vessel walls and the site of the injury is gummed-up by the plastic exudate consisting of lymph, exuded blood cells, and the dead cells of the part affected. There is a proliferation of cells from the capillaries, which push their way into the gummed-up mass, swell up into macrophages and develop the power of phagocytosis. They absorb the fluid, remove the dead cells, thus cleaning up the space which gets filled up with a chemical fluid which gradually turns into fibrils and ultimately develops into a tough fibrous tissue. The latter, not being of the same consistency and elasticity as the rest of the uninjured portion of the muscle, interferes with the harmonious action of the bundles of fiber constituting the individual muscle.

Contusion of muscle. As a rule, contusion is not severe, yet it may lead to protracted disability; particularly is this the case with the deltoid muscle. Prolonged disability may lead to a hematoma between the fibers and injury to the nerve, or injury to the underlying shoulder joint.

Muscle strain may be the outcome of direct injury, but more commonly results from sudden, violent tension thrown upon the fibromuscular structures. It is usually sustained in an attempt to perform some task which is too great for the muscle, as for instance, when a person is trying to lift a too heavy weight. The severity of the damage varies from mere stretching of a few fibers to a partial, or even complete, rupture of the muscle.

Muscle wounds are of no particular significance if the wound is an incised one and clean;

they generally heal by first intention. However, if the line of injury is transverse to the muscle fibers, as in the abdominal wall, a ventral hernia may result. If the wound is infected, permanent damage results from the destruction of muscle tissue.

Rupture of muscle occurs usually as a result of direct trauma or a strain due to sudden and unexpected effort. In such case the muscle may be torn across near the end where the elastic muscle is inserted into the inelastic tendon. The muscles most frequently ruptured are the rectus abdominus, the adductors, biceps brachialis and the quadriceps extensor.

Acute myositis is the term used to indicate the process of repair immediately after an injury to any muscle. In the milder form there is a serous saturation and cellular infiltration of the perimysium; the muscle fibers remain intact or show a mild reaction, become cloudy, swollen or even show a slight fatty degeneration, but healing occurs without permanent muscle changes.

Chronic myositis is the prolonged or chronic state of inflammation resulting from trauma and leading to permanent changes in the muscle structure, preventing contraction and leading to limitation, or entire loss, of movement. Here we find organic changes in the muscle tissue proper, produced by the injury to blood vessels, extravasation of the contents, and the resulting secondary inflammatory changes. There is an organization of the plastic exudate, with marked local fibrous hyperplasia, resulting in replacement of the elastic muscle element by a fibrous overgrowth, giving rise to pain, stiffness and disability.

Myositis ossificans traumatica is a localized ossification of muscle tissue following trauma. Occasionally, even after a single trauma, the process does not stop with the replacement of muscle tissue by fibrous, but proceeds further toward calcification and complete ossification of the muscle. While the underlying pathology is little understood it has been observed that this form of myositis occurs when immediately following the trauma there is a hemorrhage which crushes the muscle fibers and stimulates connective tissue formation,

and its ultimate ossification. It may occur as a result of over-zealous treatment of a fracture, rough handling, too early movement, or too vigorous massage. As a rule, it is a self-limiting disease and the bony mass is slowly absorbed. However, if the condition persists, operative procedure is indicated only at a very late stage when all progressive changes have ceased. This condition is exceedingly painful and very disabling.

Volkman's ischemic contracture or ischemic paralysis. In this form of myositis the paralysis is the result of muscle necrosis secondary to pressure upon the peri-arterial sympathetic nervous system. This pressure may be the result of external forces, such as a tight bandage or splint, but it can also be caused by a large hematoma or other fluid under tension. As a result, the muscle cells die, fibrosis takes place, and the fibrous tissue contracts. Unless remedied early, it remains permanently as a very distressing lesion.

TENDONS

Structure. Tendon is a strong band of fibrous tissue by means of which muscle contraction is transmitted to its destination. The end of the tendon is expanded and blends in with the fibrous covering of the bone. The tendons represent the densest and toughest variety of connective tissue, and they are composed wholly of white fibrous tissue. They consist of large bundles of parallel white fibrils known as "primary tendon bundles" or "tendon fasciculi". The individual fibrils are cemented together by an interfibrillar substance. The fasciculi are grouped into larger bundles—the secondary tendon fasciculi—which are surrounded by connective tissue and which are, in turn, grouped together to form the tendon. The latter is surrounded and held together by a layer of connective tissue called the peritendineum. Sometimes the tendons of more than one muscle *unite* to form one strong band, like the "Tendo-Achilles"; while in the fingers, for instance, a tendon may *divide* into several bands.

Tendon sheath. Tendons run in sheaths where they pass over joints, and where the bones are usually deeply grooved for their passage. Those grooves are covered by

strong, fibrous tissue bands, so that the tendon is held firmly against the bone and joint, although allowed free movement in the direction of pull. The tendon sheaths are lined with a thinner covering of synovial membrane which may extend the whole length of the tendon and contains the lubricating synovial fluid. Due to its peculiar anatomic arrangement, an inflammation set up at one point travels along the sheath and at times extends to a communicating, neighboring sheath or joint over which it passes.

Contusions of tendon. Superficial tendons may be injured by a blow. There is an effusion of blood or inflammatory fluid which causes pain and incapacity; temporary in nature unless adhesions form, which may produce permanent disability.

With *laceration* or *incision*, a cleanly cut tendon, if incomplete, may unite without loss of function, but if the wound is infected permanent impairment will result.

Rupture of tendon. Complete severance of a tendon may result from an incised wound or from rupture due to a sudden, ill-timed, muscular exertion. Unless immediately repaired, extensive retraction may occur, making subsequent approximation impossible. The damage is irreparable because of wide separation of the fragments or the formation of adhesions in the tendon sheath.

Ganglion is a round swelling, containing a glaring fluid, developing in connection with a tendon sheath. It may be due to a hernia or protrusion of the synovial lining through the fibrous sheath. The etiology is unknown although it has been known to follow trauma.

Tenosynovitis. Inflammations of tendon sheaths are observed after injuries, crushes or over-exertions. They occur most frequently in connection with tendons of the hand and wrist and, to a lesser degree, in connection with tendons about the ankle-joint. In the acute form there is a serofibrinous, or purely fibrinous, exudate in the sheaths. When the tendon is moved, a crepitant or grating sensation is felt by the palpating finger. Motion is painful and limited. An accentuation of the same symptoms is noted

when the inflammation extends to the peritendinous tissues.

Chronic tenosynovitis occurs as a sequel to the simple acute type, a result of trauma, especially with injuries about the wrist-joint. There is a progressive enlargement of the tendon sheath, with accompanying symptoms, such as pain, weakness, discomfort and ultimate atrophy of the structure, caused by disuse. In the palm of the hand, the dilated sheaths take on an hour-glass shape because the ligamentum carpi volare is stretched over them. Disability results from adhesion of the tendon sheaths to the adjacent structures.

Infective tenosynovitis results usually from wounds penetrating the tendon sheath, or from adjacent infections extending through the sheath. Since the resistance of tendons against infection is rather poor, the infection is apt to spread very readily. Unless free drainage is established, infection attacking tendons of the hand or foot, where they lie close together, the sheaths communicate, and many small joints exist—all in close relations—the disease is apt to be serious and lead to cellulitis, septicemia, and even death.

LIGAMENTS

Ligaments are bands of white fibrous tissue binding together the articular ends of bone. They are composed mainly of bundles of white fibrous tissue, usually parallel with one another, and present a silver-white shining appearance. They are pliant and flexible, so as to allow freedom of motion, yet are strong and inextensible so as not to yield to a sudden force. In some ligaments the yellow elastic tissue element predominates, as in the ligamentum flava which connects the laminae of adjacent vertebrae.

As recited above, the function of ligaments is to bind the articulating ends of bone. By means of their elastic property, the ligaments of a joint are enabled to accommodate alterations in angles formed by components of the articulation. Although not endowed with the power of active motion, the ligaments, when stretched, are always endeavoring to approximate the joint components to the normal state of equilibrium.

Etiologically, the same class of injuries

mentioned in connection with muscles and tendons applies to ligaments. However, due to their deep-seated anatomic location, greater violence is necessary to evoke them. Usually, a sudden hyperflexion or hyperextension of the joint or joints involved, is responsible for the trauma.

Injuries. The damage to ligaments arising from a strain or sprain may vary from a mere momentary stretching of the ligament, which heals in a relatively short time, to a complete rupture with its attending pain and incapacity. At times, the trauma is such that it not only tears the ligament, but carries away part of its bony attachment. (Sprain-fracture.) A stretched or torn ligament is analagous, in its nature and effect, to an incomplete and complete fracture of a soft tissue, and should be paid at least as much attention in treatment, and as much consideration in the prognosis and estimate of future permanent disability.

FASCIA

Fascia consists of sheets of fibrous tissue which envelope other tissues, bind together groups of muscles, serve to protect underlying structures, invest and support internal viscera. Sometimes the fascias are especially adapted to extend and distribute the pull of muscle fibers. Then, they are known as "aponeuroses". In structure, the latter resemble the tendon, while the fascia differs only in that the fasciculi are not so regularly arranged, but branch, anastomose and intercross in several places.

Superficial fascia is found beneath the skin over almost the entire surface of the body. It connects the skin with the deep fascia and consists of fibro-areolar tissue containing in its meshes pellicles of fat in various quantities. In addition to connecting the skin to the underlying structures, it facilitates movements of the skin, serves as a soft bed for the passage of vessels and nerves, and retains the warmth of the body.

Deep fascia is a dense, inelastic, fibrous membrane forming sheaths for the muscles and sometimes affording them broad surfaces for their attachment. It consists of parallel, shining, tendinous fibers connected together by other fibers disposed in rectilinear manner.

It forms a strong investment which not only binds down collectively the muscles in each region, but gives a separate sheath to each, as well as to vessels and nerves. The structure varies, being thicker in the more exposed, unprotected parts, such as the lateral surfaces of a limb.

Since it is not a highly developed specialized tissue, traumatized fascia, during the process of repair, is replaced by fibrous tissue of almost identical structure. Hence, wounds and tears of fascia rarely produce permanent damage unless associated with injuries to surrounding tissues. Disability is produced by scar-tissue formation and consequent adhesions which interfere with the smooth gliding and movement of neighboring structures.

Rupture of the wider sheets of fascia or aponeuroses occurs in the back where the fibers may be ruptured by attempts to lift heavy weights, or by pushing with the shoulders. Occasionally, contracture of the fascia takes place, the torn ends do not unite, and a hernia of the underlying muscle results.

Dupuytren's contraction is an affection of the palmar fascia characterized by cicatrization of the palm of the hand and its underlying structures, and the gradual drawing of the tendons toward the middle of the hand. It prevents full closure and interferes with opening of the hand. It is generally caused by prolonged, chronic, local irritation, but has been observed to follow a simple wound of the palm.

BURSA

The bursas are spaces filled with synovial fluid and surrounded by a flat connective tissue membrane. They are water cushions placed over bony prominences to minimize the effects of friction or injury to which that bone is exposed. Ordinarily, they are over typical situations where they are known as "true bursas". Since bursas are structures developing from use, they may appear at atypical places, arising as the outcome of long-continued but intermittent pressure. The latter are known as "false" or "adventitious" bursas, and generally appear as protective ad-

juncts where the exigencies of occupation make them necessary.

The exposed position of many bursas predisposes them to injury in the form of contusions or penetrating wounds. The contention that affections of the bursas are of rheumatic origin has not been borne out by industrial experience. Recent observations tend to demonstrate the prominence of trauma and mechanical or static agencies as the etiologic factors of bursitis, while, in rare instances, it might be caused by infection-tuberculosis, gonorrhea or syphilis.

Contusions may be caused by a fall or a blow on the bursa which causes a hemorrhage into the cavity. The blood may be absorbed, organize and form a mass of fibrous tissue, or even suppurate. Frequently such injuries produce an inflammation of the lining membrane with a serous effusion, resulting in a gradual or rapid distention of the cavity, with an excess of the fluid or pus. Similarly, wounds of the bursas produce like effects with a greater likelihood of pus formation.

Chronic bursitis follows an enlargement or accumulation of fluid in a normal or newly-formed bursa. While it might be caused by tuberculosis or syphilis, trauma is the most frequent etiologic factor. This condition is usually progressive and leads to marked changes in the bursa wall and its contents. The wall is irregular and tender at the beginning, gradually thickens, the inner surface is nodular and covered with dendritic, fibrinoid, pear-shaped nodules and trabeculas, which produce meshes and pass through the cavity. A partial calcification may take place. The walls become stretched and the cavity distended. The fluid content is at first thick and slimy, but later becomes thin and serous. When infection sets in, the cavity is filled with pus. Owing to their anatomic location and exposed position, the prepatellar bursa over the knee and the olecranon bursa over the tip of the elbow, frequently become the seat of traumatic bursitis. In the shoulder the subacromial bursa is often the site of inflammation caused by a fall on the shoulder or a

severe strain of the arm. There is often associated with it a tearing of the supraspinatus tendon proper, or a sprain-fracture at its bony insertion. It is the most persistent, painful and disabling of the chronically inflamed bursas, exposing the victim to further trauma by interfering with the protective function of the arm. In the region of the hip an ilipsoas bursitis forms a fluctuating mass in Scarpa's space, while a gluteal bursitis shows a localized swelling of the buttock. Ill-fitting shoes may cause an inflammation of a small bursa between the "Tendo-Achilles" and the os calcis.

CONCLUSIONS

The end-results of trauma to soft tissues vary greatly with the tissue involved, type and location of the injury, state of the surrounding tissue, and general recuperative powers of the individual. The significance of the results lies in their effects on the ultimate physiologic function of the injured part, and its consequent industrial incapacity. After the processes of repair have gone through their various stages and the residual pathology has become stationary, the functional disability can be evaluated. The factors involved in all forms of soft tissue injury are:

- (1) Pain and tenderness—preventing or interfering with active or passive motion.
- (2) Loss of motion—by ruptured muscle or tendon.
- (3) Limitation of motion—due to scar formation, adhesions, and replacement by low-grade tissue formation.
- (4) Excess motion—loss of stability caused by a torn ligament flail joint.
- (5) Fibrosis, calcification and ossification of traumatized soft tissues.
- (6) Loss of lubricating fluid—in tenosynovitis and chronic bursitis.
- (7) Atrophy—actual loss of soft tissues.
- (8) Suppuration—is always destructive in nature and is invariably accompanied by permanent impairment of function.

THIS MATTER OF REDUCING AND GAINING WEIGHT

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Rotundity or obesity is no doubt often a disease but in the majority of cases it is also a vice. Many seek relief by consulting a physician—but, generally, the relief is sought for esthetic reasons. Often the sufferer is positive in his *desire* to reduce, but more often he is negative in his *will* to reduce; a very real distinction there.

Angularity or under-weight is also, no doubt, a disease and, rarely, a vice. Many seek relief and generally for very real and serious reasons. The desire and the will are most often vehement. Much mischief is done the various physiologic processes by carrying around an abnormal amount of weight but still greater mischief is often done by lack of weight.

The relief is often readily available to the obese by exercising the will along common sense hygienic lines. The relief for the under-weight individual is often at the end of the rainbow—and certainly always obtained only at the expense of great effort.

There is the familiar tendency that must be taken into consideration in deciding whether the particular person under consideration comes within the limits of standard normal weight. The standard normal weight—while it permits of some flexibility—is not always the optimum weight for the individual. Granting that wide divergence from standard normal weight must be considered with apprehension, we are forced to assume that most people are at their proper weight when they feel well and there is no definite physiologic or pathologic condition demanding altering the body weight. The less we do about this individual, aside from requiring him to forget worrying about his weight, the better. Bath-room scales have undoubtedly done a great deal for the American waist-line, but they have also undoubtedly made some neurasthenics.

There are several distinct under-weight types that need consideration. (1) The adolescent boy or girl. (2) The nervous type of young woman and—more rarely—young man. (3) The middle-aged woman and man.

In discussing these types, we assume that the patient is one with a metabolic problem alone; that those with bad teeth, infected tonsils, gastro-intestinal disease such as colitis, tuberculosis, and so forth, are eliminated.

Many of the first group are fortunately discovered by the school nurse or doctor in time to prevent any serious developments. Advice as to hours of recreation, sleep, diet, sex, posture and general hygienic factors, often suffice. Most adolescents, when given a written set of instructions by a physician, though such be the ordinary advice that a parent should give them, will follow it to a letter, with gratifying results.

The treatment of the second and third groups is practically identical. It is unalterably initiated with at least a 6 weeks' period of absolute rest in bed, which is best taken in a hospital, and necessitates a nurse especially conversant with the treatment.

The patient should have his feet elevated 8 to 10 inches. This sounds empiric, and it is, but, to attain success, it is almost universally necessary. The daily program should start at 7.30 a. m. with 15 minutes of exercises, which may be as follows, since some of them are after Joslin:

(1) *Abdominal kneading and stroking.* Kneading: Lying down, with knees slightly drawn up, place hands one on top of the other on the abdomen at the right groin; with small circular movements and deep pressure, work upward until the ribs are met, then across toward the left, following the boundary lines of the chest, then downward to the left groin; repeat 20 to 50 times. Stroking: With hands similarly placed, make long, steady and deep strokes, following the same route; repeat 25 to 100 times.

(2) *Leg-rolling.* Lying down, take hold of both legs just below the knees, press the knees up close to the abdomen, then carry them apart, then down and inward until they

meet again, thus letting the knees describe 2 circles; repeat 10 to 20 times.

(3) *Abdominal compression.* While lying in bed with hands clasped behind neck, draw the abdomen forcibly in, using the abdominal muscles, hold a second, then let go; repeat 10 to 40 times.

(4) *Bicycle-riding motion.* While on back, work legs vigorously as if riding a bicycle; continue this as long as possible.

(5) From a flat position while on back come to a sitting posture without the use of your arms; do this as long as possible.

(6) With the nurse offering active resistance, by placing her hands against the lower portion of the thoracic cage, have the patient take a deep breath; repeat as often as possible.

These exercises are most important if the patient is to hold what weight he had gained after he gets out of bed. Metabolically active tissue is desired, not inert adipose tissue which may be a liability rather than an asset. After exercise, the patient may be given a warm chocolate or any nutritive drink he desires. A cool sponge bath, or a salt water bath is then given.

The diet must consist of readily assimilable food. Many people do not like milk, and to many others it becomes distasteful after a prolonged period of hyperalimentation. This is an opportunity to exercise one's wits. Many tasty modifications can be devised. Always, the diet is a battle ground of patients versus physicians. Frequent appropriate changes in diet, suggested by the doctor before requested by the patient, work toward success. A possible diet list follows:

Breakfast: Orange, grapefruit, baked apple, or any stewed fruit, prunes, particularly, also applesauce. Any cooked cereal with 3 oz. cream. Oatmeal at least twice a week. Soft-boiled or poached egg with slice of bacon. May substitute lamb or mutton chop, broiled. Two pieces of bread or toast with an abundance of butter and honey. Half-glass of milk, weak tea or cocoa.

Mid-morning: Six ounces of equal parts milk and cream; 1 oz. of chocolate vitavose.

Noon Meal: Puree of pea, bean, potato,

celery or oyster stew. Choice of chipped beef with cream, baked tomato with cream, chicken, cheese or tongue sandwich. Choice of one of the vegetables listed below if desired. Abundance of bread and butter, and honey. Milk or cocoa. Choice of desserts as given below.

Mid-afternoon: Same as mid-morning; or, egg and milk or malted milk.

Evening Meal: Purée of pea, bean, potato, celery, bouillon, chicken broth with rice, noodle. Roast beef, tenderloin, brain, sweetbread; broiled lamb or mutton chop; fowl or fresh fish. Potatoes, cauliflower, asparagus, celery, spinach, creamed onions, broiled mushrooms, peas or beans. Choice of 1 green and 1 starchy vegetable. Lettuce with tomato. Olive oil or mayonnaise dressing. Two pieces of bread and lots of butter and honey. Apple, lemon, peach, custard or cream pie; bread, chocolate, rice, tapioca or cornstarch pudding; custard, blanc mange, egg-souffle, floating island, ice cream, Spanish cream, plain cake or any stewed fruit. Almonds, pecan nuts, walnuts, dates, raisins, molasses.

Beverage: Cup of weak coffee or tea at end of meal.

A free period in the morning for reading of agreeable novels or articles, or for a bit of writing, follows breakfast. After lunch, the patient is "put to bed" with the room darkened and the windows raised, while the nurse has her hours off. Visitors should be few and are allowed for an hour preceding the evening meal. Two hours in the evening are devoted to reading or "home movies". Then the evening exercise period duplicates that of the morning. A warm sponge bath follows.

For some patients insulin is a valuable adjunct but is not to be used without a proper appraisal of the physiologic problem, as it is a potent agent for good when properly indicated, and just as potent for evil if injudiciously used. A small dose of thyroid has been used in a few cases, among the middle-aged, where the metabolism was below normal, to assist in stimulating the metabolic process. Luminal, bromural, bromides and digestant mixtures are very occasionally necessary.

After the initial rest period, which may be

prolonged to 4 months on occasions, the program usually has to be adjusted to a full or partial restoration of the patient to the demands of his social and business requirements. The ambulatory program should embody all the rest and exercise compatible with the patient's mode of living.

It is sometimes easy enough to accomplish a result if we tell a patient to spend 3 months of the year in California, 3 months in Florida, 3 months abroad and then work 3 hours a day for the rest of the year. Few patients, even in boom times, can do this. It is our problem to rehabilitate these individuals with as little disturbance to their business and social lives as possible. Of course, there is a middle ground we must assume. It is within our right to urge the patient to take a summer and winter vacation, according to his pocketbook. The instructions we give them should be as liberal as possible, but what is more important, they must be specific.

ROLE OF THE GENERAL PRACTITIONER IN CONSERVATION OF VISION*

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When asked to read a paper before this society on some topic related to ophthalmology which would be of interest to the general practitioner, I could think of none more timely and practical than the one chosen. The subject is so large that reference can be made only in the most cursory manner to a few of its many features, some of which merit more serious consideration by the general practitioner. That valued member of the community depends entirely, in most cases, on the ophthalmologist in all matters, even the most simple, pertaining to the eye. He readily admits, rather boastfully, apparently, that he knows nothing about the eye. Therefore,

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what I shall say may seem somewhat elementary.

During the lifetime of most of us here, the progress of scientific medicine as a curative and healing art has been marvelous. But still more important have been the results accomplished in the less spectacular field of preventive medicine. Conservation, prevention, prophylaxis, are the watchwords of modern medicine. In recent years this great humanitarian movement has attracted the attention and best efforts of sociologists, economists, social service workers, philanthropists and many other earnest and devoted workers outside of the medical profession. Large employers of labor have learned that prevention of illness and accidents means greater efficiency and better production. The public is interested.

Recently, the "Saturday Evening Post" made the following editorial comment on this subject:

"National health is a perennial problem of prime importance. Every survey of its economic aspect alone employs figures running into the billions of dollars. Several life insurance companies, and one in particular, actuated presumably by broad-vised business motives, are rendering service of signal value along the lines of preventive medicine. The extent of popular medical education, though it has only begun to grow into what it is bound to become, is steadily broadening. People like to be told about their own bodies and like to know how to keep them in order, unwilling as they may be to observe the rules of health and hygiene laid down for them."

With the exception of saving human life there is no work so important as the conservation and preservation of the function of vision. It has been estimated that there are over 100,000 blind persons in this country. This is but little better than a guess. No accurate census of the blind has ever been made, nor can be until there is some agreement on the definition of the term "blindness", and the count is made by trained observers. But whatever the number may be, there are good reasons for believing that at least one-half are due to preventable causes. There are many times this number of persons whose efficiency and usefulness are greatly impaired because of considerable impairment of vision of one or both eyes. This represents an enormous economic loss, while the

suffering and unhappiness of the victims of these physical handicaps, a large proportion of which are preventable, are appreciated only by those who come in daily contact with them.

During the past 25 or 30 years many agencies have been at work to remedy these conditions. The earlier efforts were principally against ophthalmia neonatorum. Since the founding of the National Society for the Prevention of Blindness, the work has had renewed impetus and effectiveness. The results are shown by the reports of schools for the blind throughout the United States. In 1907 over 28% of the children admitted to these schools were blind because of birth-infection of the eyes. This percentage has steadily fallen until last year it was 9.3%. This is a notable achievement and demonstrates the value of the modified Credé treatment.

In this connection it is interesting to note that in 1884, only 3 years after the publication of Credé's original paper, the late Dr. Charles J. Kipp, of Newark, in a paper read before this society, called attention to the Credé method, and outlined an excellent plan of prophylactic and curative treatment of ophthalmia neonatorum. He suggested that the society recommend the publication, by the State Board of Health, of circulars for the laity, giving information as to the cause and prevention of ophthalmia of the new-born. This was probably one of the first steps in the field of the prevention of blindness by organized medicine in this country.

One of the major causes of impairment of vision, particularly in children, is syphilis in one or other of its many manifestations. It has been shown that a large percentage of syphilitic children are born with pathologic eye conditions, usually in the retina and choroid. Of those that survive, many develop interstitial keratitis sometime between the ages of 3 and 15 years. Most of these children retain enough vision to keep them out of the schools for the blind, but many of them are seriously handicapped for life. Acquired syphilis in the secondary stage is a frequent cause of iritis, which gets well with-

out permanent damage to sight if treated promptly. In the tertiary stage, it is the most frequent cause of paralysis of the ocular muscles. Another late manifestation, and the most tragic, is atrophy of the optic nerves. This usually occurs while the individual is still comparatively young and vigorous, and nearly always results in total blindness in spite of any form of treatment.

The prevention of ocular disabilities resulting from hereditary lues is largely in the hands of the family physician and the obstetrician. We know the importance and value of prenatal care, but most of our patients do not. Much educational work along this line is being done but it has only begun. It has been demonstrated that an early Wassermann test in pregnancy, followed by adequate prenatal treatment, when indicated, will in practically all cases prevent congenital syphilis with all its mental and physical handicaps. New-born babies should be Wassermann tested routinely. Hereditary syphilis, like acquired syphilis, is very amenable to therapy in the early stages and can be arrested with proper treatment. This has no effect on atrophic fundus changes that have already occurred, but it is almost a sure preventive of interstitial keratitis. Prevention of the eye complications of acquired syphilis depends, of course, on education of the public concerning the importance of early and persistent treatment.

One of the most common causes of unilateral impairment of vision is convergent strabismus, commonly termed "squint" or "crossed-eyes". Only the ophthalmologist is aware of the very large number of individuals in every community who are practically one-eyed from this cause. Its economic importance has been emphasized in recent years, owing to the increasingly prevalent practice in large industrial and business organizations of requiring a visual test of all prospective employees. Because of this defect, many otherwise fit and capable applicants for employment are rejected. They have the same difficulty when applying for positions under the state and federal civil service. They immediately go to the eye specialist to see what

can be done about it. Unfortunately, in most cases, nothing can be done. It's too late. The result is heart-breaking disappointment.

Notwithstanding the emphasis placed by medical teachers and writers during the past 2 decades, on the value of the early treatment of squint, many general physicians are apparently not aware of the importance of, or the reasons for, this teaching. A brief re-statement of these reasons may be worth-while. Reference is made only to concomitant convergent strabismus, the type of squint commonly seen in children. This usually begins between 1 and 4 years of age. In most cases it is confined to 1 eye, but is sometimes alternating.

The underlying cause of most cases of squint is hyperopia (far-sightedness). Occasionally, pathologic changes in the eyes or anatomic defects are the chief etiologic factors. In order to have clear vision, the hyperopic eye must use an excessive amount of accommodation (focusing effort). With this, there is an over-stimulation of convergence, because these functions are inseparably associated and coordinated. The eyes can adjust themselves to this excessive convergence impulse up to a certain point and maintain binocular single vision. The ability varies with different persons, but when the effort becomes too great, one eye gives up the struggle and gets out of line with its mate. A very important factor in maintaining parallelism of the eyes is the fusion sense. By virtue of this function, which is purely psychic, images from the 2 eyes are fused or blended into one in the brain, and binocular single vision results. Binocular single vision cannot be maintained unless there is perfect alignment of the eyes, so that images are formed on corresponding points of the retinas. Diplopia, which appears as soon as the eyes get out of line, is so intolerable that a well developed fusion sense will incite a sufficient adjustment of the oculomotor apparatus to overcome a considerable tendency to deviate.

According to Claude Worth, development of the fusion sense begins about the end of the first year and is complete by the end of the sixth. Likewise, central vision is prob-

ably very imperfect during the first few months. The eyes maintain their position in any given direction of gaze by fixation on some object. If vision is poor, fixation is difficult and uncertain, but with sharp, clear, retinal images and a well developed fusion sense, there will be perfect alignment of the eyes and binocular single vision, in spite of the presence of excessive convergence impulses or other adverse conditions. If, however, the fusion faculty is weak or undeveloped, this coördination is easily upset, and squint results. This often occurs as the result of acute infectious diseases, injuries, etc. As soon as strabismus appears, no matter how slight the degree, development of the fusion faculty ceases, and if it is unilateral, central vision of the squinting eye deteriorates. The latter is from non-use, as the result of the spontaneous suppression of images to do away with double vision, and is called *amblyopia ex anopsia*.

If proper treatment is begun at once in such cases, the results are very satisfactory. Suitable convex lenses to correct the hyperopia, reduce the over-active convergence impulses, and the eyes quickly resume their normal position and remain straight. This ideal result is seldom obtained unless the patient is seen early.

The younger the child when the squint begins, the greater is likely to be the loss of vision if it remains untreated. Under proper management, glasses can be worn, if indicated, soon after the child is 1 year old. Usually, the squint has been present for some time, often 2 or 3 years, or more, before advice is sought. In these cases, glasses alone are not often sufficient to effect a cure. Means must be employed to improve the defective vision of the deviating eye. Periodic exclusion of the good eye with a cover, or blurring it with a cycloplegic, thus forcing use of the squinting eye, is often effective. Orthoptic training with the Worth amblyoscope, or other methods, will, in certain cases, develop the fusion sense, but is valueless unless the squinting eye has at least a fair amount of vision. To be successful, intelligent home coöperation is essential, and these procedures

must be employed early. After 6 years of age they are practically useless. For this reason, most school children, even those in the lowest grades, have already passed the age when treatment can be of much value. The squinting eye may be straightened by an operation, often with the aid of glasses, but this does not restore the vision. *The pre-school age is the time for successful treatment.*

Eyes that are not suitable for non-operative treatment, and those in which it is not effective, should be operated on without unnecessary delay. In early cases, placing the eyes in proper alignment by means of an operation increases the chances of other forms of treatment being successful. In selected cases an operation may be done as early as 2 years of age. I have operated on a child 25 months old, with satisfactory results. It is unnecessary and unwise to wait, as is so often done until 8 to 12 years of age.

Even when there is no hope of restoring vision to a squinting eye, an operation should be done for correction of the deformity. Cross-eyed children suffer intensely from the cruel taunts and jeers of their play-mates. They become sensitive and timid and often develop an inferiority complex.

Family physicians and pediatricians usually see these cases first. They can render a very important service to their patients by sending them to a competent ophthalmologist at once. The advice sometimes given to wait and see if the child "will out-grow it" is *out of date and pernicious*.

Another juvenile eye defect, whose early recognition and treatment are very important, is myopia or near-sightedness. Nearly all eyes are hyperopic at birth and many remain so, although the tendency is for hyperopia to decrease because of a stretching of the coats of the eyeball during the growth of the individual. Myopia is seldom congenital. It usually develops at about the ages of 8 or 10 years, earlier in some cases. It tends to progress, but much can be done to check or retard it. The over-stretching of the coats of the eye, which causes myopia, is sufficiently resisted under normal conditions, but eyes weakened by malnutrition, disease, bad hy-

gienic conditions or hereditary tendency, readily yield to the strain of too early or excessive close work and become myopic. Once begun, no one can tell, in a given case, how far myopia will progress. Necessitating the constant use of glasses, it is at best a serious inconvenience and handicap, but in more advanced cases it often causes serious pathologic changes in the eyes, sometimes leading to blindness. As the onset is gradual, usually without pain or other symptoms of eye-strain, it is easily overlooked until well advanced. One of the most valuable results of medical inspection of school children has been the early detection of myopia. All children should have a visual test before entering school and if the vision is found to be sub-normal they should be examined by an ophthalmologist. With modern methods, the vision of children as young as 3 to 4 years can be tested, and any intelligent person can be taught in a few minutes how to do it. Every general physician and pediatricist should have the simple, inexpensive equipment necessary for testing vision accurately, and should use it frequently.

The important thing about myopia is—it does not improve. In most cases its progress can be retarded, and sometimes checked, by the use of glasses, together with more or less restriction of the use of the eyes and attention to the general health. The eyes should be reexamined by an ophthalmologist at least once every year during school life. All unnecessary close work, such as fine drawing, sewing, weaving, the use of fine print, should be prohibited, and the child should lead so far as possible an out-of-doors life. Myopia is much less likely to progress in strong, robust children than in those who are frail or anemic. It has been frequently noted that myopia develops or, if already present, progresses rapidly following an illness, particularly the acute infectious diseases of childhood. Therefore, the child should not return to school or be permitted to do close work at home until recovery of health is complete. Most school children with 4 diopters or more of myopia, and all cases that continue to progress in spite of treatment, should be put in sight-saving classes.

The sight-saving class is a comparatively recent adjunct of our public school system, which for several years has been actively fostered by The National Society for the Prevention of Blindness. Its aims are: (1) To educate pupils with the least possible eye-strain. (2) To teach them enough eye hygiene to conserve the vision they have. (3) To provide such vocational guidance as will prevent them from choosing occupations which are injurious to their eyes. There are now 366 of these classes in the United States.

A large percentage of patients, past 50 years of age, who come to the ophthalmologist for refraction, have pathologic changes in the eyes. These are often overlooked unless the examination is thorough and made with the aid of a mydriatic.

Impairment of vision is the usual complaint, and relief is expected through a change of glasses. Long continued eye-strain does, in certain cases, bring about definite morbid conditions in the eye, but more often the real cause is some systemic disturbance more or less remote from the eye. The more common causes of disabling impairment of vision and blindness in middle and advanced life, are glaucoma, cataract and disease of the retina or retinal vessels; conditions very often closely related to organic disease elsewhere in the body, metabolic disorders, toxemia, focal infection or other conditions whose presence would be revealed by a thorough-going, periodic health examination, concerning the value of which this society has for several years been trying to educate its members and the public.

It is a common occurrence, during the course of a routine eye examination, to discover with the ophthalmoscope or other means, suggestive signs or definite evidence of grave systemic disease of which the patient is unaware, or which the family physician has had no opportunity to discover, or has overlooked by a too casual examination.

The importance of the early detection and appreciation of the significance of many of these danger signals should be sufficient reason for warning patients against eye examinations by anyone except a medically trained eye specialist. The average patient does not know

the difference, until after expensive experience, between an ophthalmologist and an eye-glass seller who calls himself an "eyesight specialist" or an "optometrist".

The point that I have tried to emphasize in these haphazard remarks is that conservation of vision is not a matter for the exclusive attention of the ophthalmologist. It is a general health problem. While the eye surgeon sometimes gets a tremendous thrill from salvaging an eye badly damaged by disease or trauma, often brought about by neglect or carelessness, the more important work of prevention requires the coöperation of the general physician, the public health nurse, the welfare worker and organizations such as the National Society for the Prevention of Blindness. Our coöperation will possibly be more effective if we keep in mind the old Jesuitic saying: "A great deal of good can be done in the world if one is not too careful about who gets the credit."

DISCUSSION

Dr. Elias J. Marsh (Paterson): To listen to a paper by Dr. Sherman is always a pleasure; to be asked to discuss one is a somewhat perilous honor, because Dr. Sherman usually covers his subject so completely as to leave to any person discussing it little to do but display his own ignorance. However, on this occasion Dr. Sherman has allowed some opportunity for discussion by choosing a subject so broad that it could not be entirely covered in the paper itself. Consequently, after urging everyone to read the paper, in full, as it will be printed in our Journal, and especially for what he says of the relation of the G. P. to syphilitic disease of the eye, which you will readily appreciate, and to amblyopia *ex-anopsia* and squint, I shall confine my remarks chiefly to his statement that the general practitioner "depends entirely, in most cases, on the ophthalmologist in all matters, even the most simple, pertaining to the eye. He readily admits, rather boastfully, apparently, that he 'knows nothing about the eye'."

Those of us who are doing ophthalmic practice, frequently enough have patients referred to us by general practitioners that he, the general practitioner, ought to be able to care for, but he apparently mistrusts his own ability. On the other hand, we also note instances where the general practitioner, perhaps not quite sufficiently mistrustful, has continued to treat the patient until he has gotten himself into a mess from which he wants us to extricate him. For instance, we see many cases of foreign bodies on the cornea which a general practitioner should be able to remove completely and successfully, yet only too often he either passes the operation up entirely, or removes only part of the foreign body, leaving fragments to cause trouble. In this connection, I remember that when I was in general practice, before I had taken up ophthalmology, I referred a patient with obstruction of the lacrimal passage to a friend of

mine who was, and is, an ophthalmologist. Afterward, I told my father what I had done, and he said: "Any doctor who is not, himself, able to pass a lacrimal sound, is not qualified to practice medicine." I am not sure, today, that I would completely endorse that sentiment but there is still a great deal in it. General practitioners should be able to treat a good many eye affections, just as they treat affections of other organs; and besides, they have considerable responsibility in some cases for possible loss of vision on account of delay. Not very long ago I saw a case of congestive glaucoma which had been treated by a general practitioner with argyrol.

I have in my hand here an article on "Ophthalmic Education" in the American Journal of Ophthalmology, describing the teaching of undergraduates in the University of Iowa. I think that some of our famous medical colleges give the undergraduates very insufficient instruction in ophthalmology. In some of them, even the best, it is not required that pupils have any training in ophthalmology. I don't see how any person can be qualified to practice medicine unless he has had some training in ophthalmology; first, to relate the ocular condition to the general disease which he may be called upon to diagnose and, if nothing more, to know what he can do himself and when he should refer his patient to an ophthalmologist. This article goes into the training of the undergraduate and also into graduate teaching. Speaking of the undergraduate, with whom I am particularly concerned at present, it says:

"Clinical teaching is confined almost entirely to ophthalmoscopy. An electric ophthalmoscope is provided for each student and he is trained in its use. The recognition of lesions which result from general diseases and the aid which may be given by ophthalmoscopy to general diagnosis are impressed upon the student. He is expected to use an ophthalmoscope, much as he is expected to use a stethoscope, a percussion hammer, or other diagnostic instruments. In addition, the student is taught to recognize and treat a few common ocular diseases, such as cataract, glaucoma, squint, interstitial keratitis, corneal ulcers, and gonorrheal ophthalmia."

Then, speaking of the clinical picture: "A few of the primary ocular conditions are equally impressed on the student's mind; e.g., cataract, glaucoma, iritis, conjunctivitis, and corneal ulcer, but no time is wasted on the differential diagnosis of types of corneal ulcer, conjunctivitis, and such."

I think, Mr. President, that such teaching as that every medical college owes to its students, and the practitioner who has not been fortunate enough to have such a training in his undergraduate course, owes it to himself and to his patients to check up somewhere, just, as I have said, to avoid such circumstances as treating a congestive glaucoma with argyrol, and other occurrences of that sort, which we see from time to time.

There is one thing I want particularly to say. One disease that is among the, I won't say common, but, unfortunately, not very infrequent, causes of blindness—is the condition of simple, progressive glaucoma, and the earlier stages of that disease are not usually seen by the ophthalmologist. As a rule, they come to us only late. Now, I don't expect a general practitioner to diagnose such a condition, because diagnosis is often difficult enough, even for the ophthalmologist, at certain stages. But I do ask you, when an elderly patient has even such comparatively elementary symptoms as watering and burning, combined with occasional blurring of vision, and a tendency to

dilated pupils, that you refer that patient, whether you know or do not know what the diagnosis is, to an ophthalmologist for his opinion, for a great many of those patients, if taken in time, can be assured of practically normal vision for many of the remaining years of their life. That is not always true. There are some cases that will go on to blindness in spite of an operation or anything that can be done, but the earlier they are seen, the safer, of course.

There is one thing more that I would ask of you, and that is that you relieve a good many of your patients of the horror that some people seem to have at the thought of cataract. Of course, cataract is a serious condition; I don't intend to minimize its seriousness, but at the same time, compared with glaucoma, it is a simple matter. In a majority of cases, if the cataract is operated on in due season, useful vision can be restored. Neither the operation nor the condition is a trifling matter, but some people have a disproportionate horror of it, and they say: "Oh, Doctor, if I have cataract, don't tell me". I have known patients, as have all of you, in whom after 60 or 65 years of age the beginning of a cortical cataract has shown itself apparent in the pupil and yet those patients have gone on to live 10 or 15 years and never knew there was anything wrong with their eyes except perhaps that they could not get glasses that were fully satisfactory. On the other hand, if you tell a patient he has glaucoma, in most instances, it doesn't mean anything. If you tell the patient that it is a serious disease which will require either an operation on the eye, which he doesn't like to have if the eye seems to him in good shape, or systematic treatment over a long period, like any other systematic treatment, it is difficult to get him to listen. I make this appeal to the general practitioners, particularly.

We are told now-a-days that the general practitioner is an "extinct animal" but a great many people are old-fashioned people, as people who have cataracts mostly are, and they don't seem to know of it. They haven't learned it yet. Like those mountaineers down in Tennessee who are said to be still voting for Andrew Jackson, there are people who still believe in the general practitioner. They have a faith in him that they don't have in the ophthalmologist or any other specialist. I make an appeal to those of you who are general practitioners, to do what you can to support us in anything that may be necessary for their treatment and relief.

Mr. Lewis H. Carris (Managing Director of the National Society for Prevention of Blindness): On account of the lack of time, I shall try to talk while the operator is preparing the film for showing.

I appreciate the privilege of coming here, at the request of the Medical Society of New Jersey, because, after all, it is coming back home, for I had a long experience in educational work in New Jersey.

I really wish that every practitioner throughout the United States could read carefully Dr. Sherman's paper and also Dr. Marsh's discussion. We want you to get acquainted with the National Society for the Prevention of Blindness. It exists purely for the purpose of putting into effect the teachings and findings of science as developed in the practice of ophthalmology, including the treatment, both medical and surgical, of eye affections. Our society tries to coöperate with the medical profession. It does realize, however, that while the ophthalmologist is on the firing line and must,

in the last analysis, have the responsibility for preventing blindness from potential causes, such as have been discussed—glaucoma and cataract—the society can do much toward helping to remove the causes by the promotion of hygienic conditions and preventive methods. Therefore, in addition to coöperating with the medical societies and medical practitioners, including ophthalmologists, we set up coöperative relationships with any agency which has a responsibility, direct or indirect, in the conservation of vision, as, for instance, with the Standing Committee on Conservation of Vision of the State and Provincial Health Authorities of North America. The National Society acts as the Secretariat of that committee and does a great deal of work in connection with it. There is also, as most of you know, a Joint Committee on Health Problems in Education, of the National Education Association and the American Medical Association, of which Dr. Thomas D. Wood, of Teachers College, Columbia University, is Chairman. At the request of that Committee, the National Society has assisted in the preparation of a pamphlet called "Conserving the Sight of School Children", which has run through several editions.

You see, it is very important indeed that the school authorities, state and local, should have a full understanding of the importance of conserving sight, because it is a responsibility of the school system, through the medical inspection service, to determine the departure from normal vision. In addition, it must provide an environment that will preserve normal vision, including better lighting facilities, better type, better seating arrangements, etc.

The motion picture—"Conservation of Vision"—was shown.

ELECTROCARDIOGRAMS OF MENTAL PATIENTS

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Cardiologist to the State Hospital, Where This Work Was Done in the Electrocardiographic Department,

Trenton, N. J.

Modern electrocardiography, even when measured by the short yard-stick of modern medicine, is in its infancy. Research is rapid and must be varied if the total store of information is to be enriched. It is well understood that a rapidly growing subject is apt to be filled with numerous non-essentials. This paper was undertaken because it was felt that whatever else of value might be present, certainly the greatest benefit would be derived from the recording in literature of so large a number of tracings made upon the mentally ill. This work must be considered preliminary because it represents the results of only 1 year of observation. It is entirely unbiased

and not written with any view to development of a new principle in diagnosis.

Upon a like number of patients, 744 tracings were made and the patients were not selected as to the type of mental disease present; being selected mainly on the basis of their ability to coöperate in the examination. Comparatively few patients objected to the electrocardiograph.

Diagnostic criteria. For the diagnosis of organic heart disease in mental patients, the criteria are essentially the same as for any other group of individuals, but because of the unreliability of the past history, the physical and laboratory examinations must bear the burden of diagnosis. This tends to a conservative estimate of the incidence of heart disease, because of the impossibility of developing histories of infections such as rheumatic fever, and of symptoms like dyspnea and precordial pain.

Incidence of organic heart disease. Of the 744 patients, 106 (14.2%) were found to have organic heart disease; which figure is almost 3 times the calculated incidence found in the general population, and certainly is twice that found in the average general hospital. The majority of these cardiac patients were arteriosclerotic, and since there is a close relationship between vascular sclerosis and mental disease, and vascular sclerosis and cardiac disease, the reason for the high morbidity rate becomes obvious.

Electrocardiographic diagnosis. A further analysis of the patients with organic heart disease was made to determine what part the electrocardiogram played in diagnosis; and 31 out of 106 (29.2%) showed no abnormality of circulatory apparatus, on physical examination. The presence of heart disease in this group was determined by the electrocardiogram. The graphic findings included abnormal T1 and T2 waves, intraventricular block, low voltage, and increased P-R intervals. It is possible that in this group of patients, if a definite history suggesting heart disease had been developed, a certain percentage would have been found physically altered. But certainly the number is too large to admit of gross carelessness in overlooking physical signs of heart disease.

The remaining 75 (70.7%) showed clinical evidence of heart disease, and all but 15 of those had abnormal tracings; i. e., only those abnormalities generally accepted as indicating definite cardiac pathology are included.

Abnormal waves. The frequent appearance of abnormal waves in electrocardiograms heightens the interest in their interpretation. Some of these waves have a definite significance, as, for example, inverted T1 and T2, but others have borne the inaccuracies of surmise.

Abnormal P waves have been described as due to abnormal auricles, the result of cardiac or pulmonary disease. Inverted T3 waves have been, in some instances, believed to be the residuals in cases of coronary occlusion.

Under the heading "abnormal P waves", notched, split, low, high, and inverted waves were included: 155 (20.8%), in lead 1; 68 (9.1%), in lead 2; and 119 (15.9%), in lead 3, possessed some such abnormality. In no instance was this abnormality present in all 3 leads. There is at present no known significance for this large group of altered P waves; the physical examinations denied the auricles as the seat of disease in the vast majority of patients in this group. We must be content, therefore, with the knowledge that abnormal P waves do occur in as high as 20% of tracings, and apparently are of no value in diagnosis in the absence of physical signs. Certainly, the mental state of the patient can not be accused of being the responsible factor.

Inversion of T3 occurred in 203 (27.2%) of the electrocardiograms. The high incidence in this series, and the fact that this abnormality was found in individuals, many of them quite young, with absolutely no other evidence of organic heart disease, is conclusive evidence that inversion of T3 is of no significance and can be ignored.

In addition, 125 (15.4%) of the tracings showed iso-electric T3 waves; and 37 (4.9%) showed diphasic T3 waves. With the inverted waves, 365, or 49.0% of all the tracings (744), presented abnormal T3 waves.

Axis deviations. In this paper the terms "left and right axis deviations" are used in

the sense described by most cardiologists, and not, as some advocate, the reverse of the established conception. Left axis deviation was found in 178 (23.9%) of the tracings; 90 (12%) were found to have right axis deviation. The physical examinations do not permit the drawing of a general conclusion—that left and right sided enlargement, respectively, are consistently present. There can be no doubt but that the physical build of the individual influences the deviation irrespective of the presence of heart disease. In this series the consistent observation was made that thin, under-nourished, and often long-chested, individuals presented right axis deviations, apparently because of a low diaphragm which permitted the cardiac apex to approach the vertical plane. Here again there is no evidence that the patient's mental condition influences the electric axis of the heart, except that inordinate appetite with an increase in weight, or prolonged under-nourishment, may affect the height of the diaphragm.

Sinus tachycardia. In this series, 120 out of 744, or 16.1%, presented definite sinus tachycardia (ventricular rate over 105 per minute). It is important to properly evaluate this sign. A complete examination with subsequent observations as to progress of the patient is necessary for this evaluation. The frequency with which foci of infection have been found in patients mentally ill, makes sinus tachycardia of especial importance, because its finding may give the original clue to the presence of infection.

Other signs. The accompanying table indicates the number and percentage of the electrocardiographic signs present. In general, no comment is required. The list has perhaps no constructive value but it presents at once to the reader a compilation of findings in 744 mental patients and suggests the advisability of recalling that many abnormal signs are not necessarily indicative of abnormal hearts.

CONCLUSIONS

(1) We examined 744 mental patients, from a cardiac standpoint, and 106 (14.2%) were found to have organic heart disease. Of this number, 31 (29.2%) were discovered by routine electrocardiographic studies; their

physical examinations revealing nothing abnormal.

(2) Because histories of cardiac symptoms are accurate only when elicited from patients themselves, the above conclusion indicates the necessity for a routine electrocardiographic examination of all mental patients.

(3) The significance of certain abnormal electrocardiographic findings is discussed.

(4) The incidence of these findings is given in a statistical compilation.

Grateful acknowledgment is made to Drs. H. A. Cotton and R. G. Stone, Director Emeritus and Director, respectively, of the State Hospital at Trenton, for permission to use the above material.

To Mrs. Teresa M. Johnson, for her technical assistance, thanks are rendered.

TABLE

Finding	Patients	Percentage
Tracings	744	100.0
Organic heart disease	106	14.2
Abnormal physically	75	70.7—of 106
Normal physically and abnormal EKG	31	29.2—of 106
Abnormal P waves		
Lead 1	155	20.8
Lead 2	68	9.1
Lead 3	119	15.9
Inverted T1, T2, or both		
T1	18	2.4
T2	13	1.7
Both	3	0.3
Iso-electric T1, T2, or both		
T1	17	2.3
T2	16	2.1
Both		
Diphasic T1, T2, or both		
T1	5	0.6
T2	12	1.6
Both	37	4.9
Total abnormal T3	365	49.0
Inverted	203	27.2
Iso-electric	125	15.4
Diphasic	37	4.9
Left axis deviation	178	23.9
Right axis deviation	90	12.0
Sinus tachycardia		
(Rate 105 or more)	120	16.1
Sinus bradycardia		
(Rate 60 or less)	15	2.0
P-R interval above 0.20 sec.	7	0.9
Low voltage (5 mm. or less)		
Lead 1	58	7.7
Lead 2	18	2.4
Lead 3	92	12.3
Excessive voltage		
(20 mm. or more)		
Lead 1	11	1.4
Lead 2	39	5.2
Lead 3	11	1.4
Auricular fibrillation	4	0.5
Ventricular premature contractions	21	2.8

Finding	Patients	Percentage
Auricular premature contractions	2	0.2
Right bundle branch block	3	0.3
Intraventricular block	7	0.9
Auricular paroxysmal tachycardia	1	0.1
Auricular flutter	1	0.1
Nodal rhythm	1	0.1

MEDICAL ASPECTS OF THE WORKMAN'S COMPENSATION ACT*

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New Jersey, although one of the smallest states in area and for many years known as an agricultural state, today is recognized as one of the largest industrial centers in the country, ranking fifth in the Union. This immense development has naturally created important problems, affecting not only the growth of industry but also the welfare of the medical profession, as shall be seen. Aroused by public demand, that industry should bear the burden of defraying expenses of its injured employees, passage of the compensation law became an economic necessity. It is obvious that it was a very humane act and has kept the unfortunate injured, their widows and orphans, out of the indigent class, thereby relieving society of the burden of this type of charity. These were patients who, formerly, were treated in free clinics and wards, and the physicians generally received no fees for their services. Bearing these facts in mind, industry, and the public in general, will demand that such an extraordinary social measure of relief for employees be operated on a strictly economic basis, and be devoid of any abuses.

With passage of the Workman's Compensation Act, and creation of the Bureau, there also arose various obstacles affecting the relationship between the doctor and the enforcement of this act. Several problems, that were purely medical in nature, then arose in which the profession had to become vitally interested. The Bureau was also very anxious to see that such problems were solved to the satis-

faction of all concerned and still be in accord with the compensation law.

As we all know, industry could not very well progress without proper medical supervision and care of employees; this including hygiene, sanitation and treatment of the disabled. Yet, when the compensation law was written and the Bureau organized, the medical profession was not consulted. There was not even a provision made at that time for a medical department, without which the Bureau could not function. What was the result? Many medical problems presented themselves, which had to be solved.

The Bureau concerns itself with disabilities growing out of industrial accidents and specified occupational diseases. The legal aspect of compensation is reviewed by a referee at informal hearings; the medical aspect, by a state examining physician who acts in an advisory capacity. His duty is to examine and study each case in coöperation with the attending physician, concerning treatment, diagnosis, and prognosis as to function, and to make his recommendations accordingly, to the referee. The medical profession, on the other hand, is charged with the responsibility of treating these patients. Industry and society in general demand that such cases be handled in the most economic and satisfactory manner. With this object in view, the state should have a personnel for taking care of any disputed medical and hospital bills that may be incurred in the treatment of these patients.

Of course, we all realize that the special provision in the compensation act—where the injured cannot choose his own doctor—has undoubtedly worked hardships on many petitioners. Morally and economically, this may not appear to be fair to the general welfare of the profession, and to have given a lucrative income to those few physicians who have tried to make a specialty of treating injured workers; and in the larger manufacturing centers it has tended to promote undesirable practices with which we are all familiar. On the other hand, industry maintains that the one who foots the bill should have the say as to medical choice; that it is to that party's interests to seek the best medical and surgical ser-

* (Read before the Somerset Medical Society, at Somerville, April 9, 1931.)

vice for the economic reason that the quicker the injured person is able to return to work the sooner compensation payments terminate. This view deserves serious consideration. I have recently learned that a commission on compensation, in New York State, appointed by Governor Roosevelt, has advocated that any physician in good standing in the county medical society be authorized to treat any compensation case, thereby giving the injured man the right to choose his own physician. This is a problem in which the leaders of industry and of the medical profession in this state might coöperate to work out a practical solution of the difficulty, from a medical and economic standpoint, thereby creating a friendlier relationship between the medical profession and industry.

It has commonly been remarked by insurance companies and some members of our profession that most medical men are not qualified to treat compensation cases. To all of this I cannot subscribe. Personally, I believe, from my own experience, that any competent physician is well able to treat industrial cases, though it may be necessary for him to seek consultations on some serious injuries. Any traumatic case that assumes an orthopedic angle should be given special attention, such as the fitting of a brace or support, or the performance of a special reconstruction operation, in order to effect a cure. From an economic standpoint, industry will always demand the best result with the least amount of lost time. It is well to remark in this connection, that whenever you receive a patient for whom prolonged or special treatment is indicated, it is *important that you notify the insurance company of the facts immediately*. Such action would obviate many disputes concerning bills.

Some of you undoubtedly have had difficulty at one time or another in collecting bills for services rendered to injured employees. A very important requisite, before going on with a case, is authorization, either from the employer or the insurance carrier. This may be direct or implied, such as in the event of an emergency. This is required by law and its observance will prevent many a

dispute concerning bills. Of course, in determining the amount of your bill, one can only expect you to charge *the same fee that you would on similar cases* occurring among workmen in the community whose bills are not guaranteed. It should always be borne in mind that the compensation law, with its liberal interpretations, operates in a Workman's Bureau, and no expensive form of treatment is appropriate, such as *special nurses* or *private rooms*, unless there is a special indication of necessity. However, we should not be forgetful of the fact that industry must bear the full expense of all reasonable medical and hospital care to save life and limb. The law also provides that when this expense exceeds \$50 special extension medical forms must be filled out in triplicate, and filed with the Bureau. These forms can be procured by writing to Trenton.

There is no set standard for medical or surgical fees in the Compensation Law, and this has frequently caused a dispute as to what constitutes a reasonable charge. I believe this problem can be solved in the same manner as compensation claims are at the informal hearings. Medical and hospital bills incurred by the injured person belong in the same category, and should be similarly handled. The procedure is as follows: The doctor or hospital submits a claim to the Bureau and the respective referee sets a date for a hearing and sends informal notices for the interested parties to appear. The bill in dispute is referred to the visiting state physician, who acts as an arbiter between the parties. With this procedure, this problem has been solved in a very satisfactory manner, especially in the less densely populated counties. In this connection, I beg to state that the Bureau has always been willing to coöperate with the medical profession.

One of the most important functions of the Bureau is estimating disabilities. It is purely a medical question and should be given careful study and consideration. Frequently a legal phase arises in this connection but I shall here confine myself to the medical aspect. In order to determine this, an accurate diagnosis must be first arrived at. Subjective

complaints cannot enter into a disability in compensation unless there is a loss of function which is warranted by a history and clinical findings. Objective findings are the chief sources in the rendering of compensation awards at the Bureau. In studying disabilities we must recognize 2 sets of diagnosis for each case, *primary* and *secondary*. The *primary diagnosis* is the initial reaction of the injury, such as concussion, sprain, fracture or dislocation, and upon it depends the probable duration of temporary disability or healing period, during which the injured person is unable to resume work by reason of his accident; the *secondary diagnosis* is the sequel or the end-result of an injury, with pathologic disturbance of structure and function, and forms a basis in estimating permanent disability. The latter is analogous to the actual or physiologic loss of function of a member, regardless of the man's trade or occupation; for instance, a traumatic valgus or a weak-foot following a fracture; a neurosis following shock or concussion; ankylosis, or arthritis, following a fractured joint; a fibromyositis following a severe sprain of the back. In a normal joint there must be maintained normal muscle balance; otherwise we get undue strain on various ligaments and muscle tendons, which may constitute a deformity. This is a very important factor in considering permanent disability, particularly in low-back injuries. Faulty postures, unbalanced and static weak backs, are common causes of complaints, and, of course, are seldom due to trauma. We have also found that frequently an enlarged or diseased prostate will cause a persistent low-back ache. All these phases must be considered before a final conclusion can be made on the disability of any workman resulting from trauma. In addition to arriving at an accurate diagnosis, of added importance in the consideration of permanent disability is the relative value of the function of a member; for example, it is commonly conceded that supination and abduction of a limb are much more important in function than pronation and adduction. The same is true of dorsal flexion being of greater value than palmar or plantar flexion; the ratio being

about 3 to 1. Brevity of time does not permit me to continue with this very important phase of the subject.

Now, finally, a word about expert medical testimony, which, in litigation concerning disabilities and compensation, should not be encouraged by the medical profession, and only resorted to when there is an honest difference of opinion which cannot be solved in an amicable way. Experience has taught us that in litigation the nature and character of the injuries become materially altered, being frequently beclouded by nervous manifestations. This renders the giving of expert medical testimony very difficult, and apt to be misleading. It very often puts the medical profession on the defensive and leaves the doctor in an embarrassing position. Foster Kennedy, a very prominent neurologist, once made the statement that "in the majority of litigation neuroses it is extremely difficult to tell what is virtue and what is vice, and it has become a complicated medical problem". So, in rendering medical testimony, and with these facts clearly in mind, we should try to act as diagnosticians and not partisans to a law suit, as is so commonly experienced today. In our Bureau, medical conferences have proved helpful in overcoming some of these difficulties and it is my belief that they should be further encouraged.

MAGGOTS AND OTHER INSECTS IN MEDICINE

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Camden, N. J.

The use of insects in medicine is ancient. The growing popularity of the use of sterile live maggots in the treatment of osteomyelitis, tuberculous abscesses and wound infections, suggests the review of some old observations and methods of treatment.

Ambroise Paré (1510-1590) mentions in his works, perhaps for the first time in literature, the relation of flies, and worms (maggots) to disease. In his "Journey to Ba-

yonne" (1564), Paré speaks of dressing at Bayonne, a Spanish gentleman who had a great and enormous abscess in his throat: "I opened his abscess, where there was found a great quantity of worms (maggots?), all creeping, big as the point of a spindle, having the head black, and there was a great quantity of rotten flesh." In his "Battle of Saint Quentin" (1557), at la Fere, Paré states: "The wounds of the injured were very putrid, and full of worms, with gangrene and rottenness so that it was necessary to use the knife to amputate that which was corrupt, * * * and to correct and arrest the putrefaction, and kill the worms (maggots) which were in the wounds, I washed them with Egyptiacum dissolved in wine and brandy, * * * the cause of making rise up from these (dead) bodies so great number of big flies which had procreated themselves from the humidity of the dead bodies and the heat of the sun, having their tails (bellies) green and blue,—that being in the air they made a shadow in the sun, * * * and I believe that there where they settled it would render the air pestilent and cause the plague. (See Packard's Ambroise Paré, Hoeber, N. Y., Second Ed., 1926. Battle of St. Quentin 1557, in "Apologie and Traite" and Th. Johnson's Works of Ambroise Paré, London, 1678; also Editions of 1634, 1649, and 1665.) See also pages 29, 69, 242, 243, and 256 in Packard's Paré (1926).

While at Turin, Paré used a recipe of new-lorn pupae (puppies?)* boiled in oil of lilies, mixed with earth worms prepared with oil of Venice. At the siege of Rouen, Paré found that use of the oil made from pupae (puppies?)* as a dressing for gunshot wounds did not give as good results as the dressing with Egyptiacum, a preparation made with honey and alum, much commended by John of Vigo.

Paré found the wounds excessively fetid and full of worms (maggots), with gangrene and corruption—after the battle of St. Quentin (1557), where he was sent by the king to la Fere in Tartenois. "Nous fusmes cause

de faire s'elever de ces corps une si grande quantite de grosses mouches . . . ayans le cul verd et bleu . . ." Paré observed the (worms) maggots in soldiers' wounds and in wounds of the skull (Th. Johnson—Translation of the Works of Ambrose Parey, London, 1678), Book X, p. 249.

". . . but mark, after some moneths space, a great number of worms came forth by the holes of the rotten bones from underneath the putrified Skull; which moved me to hasten the separation and falling away of the putrid bones. I observed 3 cavities of the largeness of one's thumb filled with worms about the bigness of points tag. . . . The bone which nature separated was of the bigness of the palm of one's hand. The patient recovered beyond all men's expectation."

Zachmann, in 1704, discussed the origin of maggots in wounds, and Baron D. J. Larrey, during the Napoleonic Wars observed the beneficial effects of live fly-maggots in the extensively infected wounds of soldiers. (Clinique Chirurgicale, Paris. I. pages 51-52. 1829).

Baer, of Baltimore (1928-1931), revived the use of maggots in the treatment of osteomyelitis, in a modern scientific manner. Many men in the United States have now been following his method of treating these infections of the bone with (sterile live maggots) this viable antiseptic remedy (Jour. Bone and Joint Surgery, July 1931, Boston). It is claimed that outstanding results have been obtained in the treatment of chronic osteomyelitis—85% cures in adults and 95% cures in children in a short period—and that there is also evidence that this form of maggot-therapy will greatly help the healing of leg ulcers, tuberculous abscesses, acute osteomyelitis and other suppurative infections.

It appears that, under maggot treatment, wound secretions become profuse and the growth of granulation tissue is stimulated. It is thought that maggots metabolize devitalized tissue and bacterial invaders, and hasten the natural processes of healing. However, it may also be that something additional in the way of enzyme-like product is produced by the maggot bodies themselves, which acts both

* (May this word—pupae—have been used as the plural of pupa, meaning a certain developmental stage of some larva, or the fly or other insect?—Ed.)

as a digestant and antiseptic. I suggest further research in this direction. Perhaps ground sterile maggots, in an emulsion or paste, may prove useful in superficial wound infections and chronic discharging wounds and leg ulcers. Possibly a substance may be isolated from these insects that will be just as beneficial as the live creeping maggots.

Dr. Thomas C. Minor, of Cincinnati, in 1902, wrote on "The Therapeutic Uses of Insects". Let us remember that in the past *Spanish fly* was used extensively as an aphrodisiac and vesicatory. Spanish flies, the dried bodies of the *Cantharis vesicatoria*, beetles inhabiting southern Europe, when ground, afford a grayish-brown powder, containing the active principle called *cantharidin*. Since Spanish flies yield their virtues to alcohol and to water, why cannot some active substance be obtained from ground maggots? Future research will tell.

Apis mellifica (Hymenoptera), commonly called *bees*, are used not only for their honey product, but also, in the form of a tincture made from their bodies, as an antiseptic diuretic in bladder and kidney troubles. Honeybees are subjected to the extractive power of alcohol to make the tincture; *Formica rufa* (ants) are so treated for making formic acid, and Spirit of ants is still being used by homeopaths; and, Beaver castoreum was formerly a similar official preparation.

Blatta orientalis (cock-roaches) were used in cases of dropsy, in the country along the Danube. Foster and Minor, of Cincinnati, have used the tincture of *cock-roach bodies* in dropsies, with beneficial effect. The Russians, too, used cock-roaches. Roaches have also been used as a dressing for wounds, to prevent tetanus; and an emulsion was also given by mouth!

I need only mention the use of earth-worms, all kinds of new-born animals—rabbits, chicks, snakes, and various other insects—by the ancient healers, barbers, and medicine men in the centuries gone by. Now, "itamenin" (obtainable from Staatliches Serotherapeutisches Institut, Wien) is recommended in the treatment of neuralgias, arthritis deformans, etc., according to Kretschy; this is a preparation

of *bee poison* made for injection purposes. I shall not be surprised if in the not too distant future some preparation will be recommended for local use, and perhaps for deep instillation, in the treatment of wound and bone infections—a preparation made from *maggots* and *roaches*. Snake venoms have long been used, and bothropic antivenin has been used by Taylor (1929) with apparently good results in purpura hemorrhagica. Live leeches certainly are not a new remedy; and except for the bleeding they may cause, and which may be of some benefit, perhaps leeches and the anti-clotting substance produced by them, may also prove useful in chronic wound infections.

Musk, a highly odorous substance, as is well-known, is obtained from the glands situated just in front of the preputial orifice of the *Moschus moschiferus*, or musk-deer of Tibet. We have now begun the use of an extract of hog stomach-wall, in the treatment of anemia, and of Armour and Company's hog spleen solution (40%, albumin free), in the treatment of eczema and urticaria.

What with the extensive use of all kinds of animal gland therapy; animal serums and antitoxins; bacterial vaccines and numerous preparations of non-specific foreign protein therapy; the newly discovered female sex hormones in the urine, placenta, amniotic fluid, and pituitary; the heart hormones in urine, synovial fluid, heart muscle, liver, skeletal muscle and pancreas; and the use of sterile live maggots for the treatment of wound and bone infections; we are truly making extraordinarily rapid progress.

Vincent M. Holt, 41 years ago, wrote on "Why Not Eat Insects?" (London, Field and Tuer, 1890). Since we eat live oysters, crabs, and the "unclean pig" of the Scriptures, why not eat slugs, grass-hoppers, locusts, cockchafers, wood-lice, and caterpillars? At one time, wood-lice were taken as an aperient; centipedes were used as a specific for jaundice; cockchafers for the plague; lady-birds for colic and measles. Holt suggests eating wire-worms, leather-jackets, and chafer-grubs, quoting Moses (Lev. XI, 22) as directly encouraging his followers to eat clean-feeding

insects: "These ye may eat, the locust after his kind, and the beetle after his kind, and the grass-hopper after his kind." John the Baptist is recorded to have lived in the desert upon locusts and wild honey. Eastern nations have, for centuries, enjoyed these insects. Cooked in many ways, locusts are eaten in Crimea, Arabia, Persia, Madagascar, Africa, and India. Holt has, himself, enjoyed eating English grass-hoppers, as a "tasty morsel". Aristotle tells us the most polished Greeks enjoyed the pupae or chrysalids (Cicadae). Cicadae are eaten by American Indians and by native Australians. The Romans, according to Pliny, ate the large grubs of the stag.

or large, Langicorn beetles. Turkish women ate the larvae of *Tenebrio*, a small beetle, in large quantities for the purpose of acquiring that plumpness of form their lords so much admired.

Snails were appreciated in ancient Rome, according to Pliny, and have been eaten in many parts of Europe. Spiders, too, were used. Rev. R. Sheppard served some common large grass-hoppers on his table and both he and Holt found them excellent; Holt ate them raw and cooked. Caterpillars, moths, and (Lepidoptera) butterflies, silkworms, etc., might all be served as delicacies and tid-bits, according to Holt.

FORGET IT

If you see a tall fellow ahead of the crowd
A leader of men marching fearless and proud,
And you know of a tale, whose mere telling
aloud

Would cause that his proud head in anguish
be bowed,

It's a pretty good plan to forget it.

If you know of a skeleton hidden away
In a closet and guarded, and kept from the
way

In the dark, and whose showing, sudden
display

Would cause grief and sorrow and life-long
dismay,

It's a pretty good plan to forget it.

If you know of a thing that will darken the joy
Of a man or a woman, a girl or a boy,
That will wipe out a smile, or the least bit
annoy,

It's a pretty good plan to forget it.

—The Kalends

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SPECIALISTS AND SPECIALISM

Rarely have we read an article—dealing with controversial subjects of such delicacy as exorbitant fees, the relative value of medical versus surgical services, the splitting of fees—couched in such judicious, conservative, diplomatic language as was used by Dr. Marsh in his address to the State Society last June. (Journal, Jan., 1932, pp. 1-4.) "With malice toward none" but with an absolutely frank presentation of the sins of omission and of commission attributable to members of his profession, he exposed conditions which all honest colleagues must condemn.

A few sentences or phrases quoted from Dr. Marsh's article will best show his views concerning 2 of the most serious problems confronting the profession; meaning, the splitting of fees and the over-development of specialism, both of which he thinks may have grown out of the same root source that was, itself, based upon "failure to discriminate properly the relative values of the 2 parts of which our professional work consists, namely, the intellectual and the manual or technical, commonly but not altogether correctly typified by medicine and surgery". After describing several typical experiences to show the inequalities, sometimes injustices, existing in payments for medical and surgical services rendered, he says: "What is the conclusion from these typical cases? Why, that *technical skill*, especially when tinged with the *spectacular* or the *dramatic*, is *better appreciated* and *more highly compensated* than *knowledge* and *intellect*. There is nothing new in

this, * * * but the present point is that we, who ought to know better and to try to counteract it, are ourselves largely responsible for its continuance and spread. * * * As to fee-splitting, I am not defending this dishonest and vicious practice, but I think it is an effort, however unwise or mistaken, to redress an injustice. If so, the rational way to combat it is not to prohibit it, but to correct the underlying cause."

By similar reasoning he attributes the grand rush of physicians into specialism, to the attraction of larger money rewards, and in support of that theme refers to Dr. Rubinow's article in the Journal of March, 1931, page 238, and his statement that "the average specialist (today) is not an expert, but merely a practitioner in a limited field".

In his conclusions, Marsh says that he does not know *what should be our first step* toward correction of this admittedly bad situation.

PERHAPS WE HAVE THE SOLUTION

Discussing Dr. Marsh's paper, Dr. George H. Lathrope said, as to fees: "High surgical fees are not reprehensible, because the people continue to pay them; and where they are manifestly unjust, they are apt not to be paid." As to the number, and quality, of specialists, he opined that the public will take care of that matter, "when people find that some so-called specialists are not all they purport to be".

It is possible that Lathrope, despite his

declaration that he was "quite as sterile of any constructive remedy as Marsh", did describe in part, "a speedy way out" of this dilemma, when he spoke as follows: "Our problem is the *modus operandi* by which specialists should be created. The American national societies of ophthalmologists, otologists and rhinolaryngologists have established Boards of Examiners, and those boards hand out their diplomas or certificates only to men who show fitness to hold them. Fellowship in the American College of Surgeons, and the American College of Physicians, *should* mean the filling of equally high qualifying requirements. When sentiment, both professional and lay, demands high standards of these and similar organizations, and refuses to recognize specialists who are not so endorsed, our problem of specialization will be largely solved. I believe, too, that with but few exceptions, no man should be considered acceptable as a specialist without one of his qualifications being at least 5 years of experience in the general practice of medicine."

As an interesting coincidence, it happened that at the same meeting of the State Society and almost at the same hour in which Marsh and Lathrope spoke, a plan for solving the specialist problem was presented by another member—Dr. Edward G. Waters, whose offering may be found in the Official Transactions of 1931, published in the August Supplement (page 41) to the Journal, and that topic is worthy of separate treatment, in an editorial of its own, immediately following.

CONTROL OF SPECIALISM

In the General Assembly of New Jersey, Session of 1929, there appeared an Act to "Control the Practice of Surgery and the Surgical Specialties" which, had it become a State Law, would have limited the granting of licenses to practice in any part of the surgical field to those who, in addition to meeting all of the requirements of the present Medical Practice Act, could produce evidence of having spent from 1 to 4 years, according to the specialty chosen, in post-graduate study, and who could also pass such practical examina-

tions as might be devised to test their skill. The Act proposed was defeated at that time, and again at the legislative session of 1930. During the past 3 years similar propositions have been under consideration by other law-making bodies in this and other countries, and while we were recommending action by our State Society, to satisfy the reasonable demands of the public in this matter, and to *fore-stall such attempts at regulation by law* as have just been referred to, Dr. John A. Hartwell, in 1930, as part of his Presidential Address to the New York Academy of Medicine, presented a plan for ascertaining the qualifications of members of that organization, classifying and listing them as specialists in one or other of the surgical branches, and of certifying them to the public in such manner as would enable a patient to make something approaching, at least, an intelligent selection when in need of surgical care. Our personal references to the subject during the years 1929-30 may be found in reports to the Welfare Committee and the House of Delegates; and an abstract of Dr. Hartwell's Address was, with his permission, published in our Journal (Feb., 1931, p. 168).

At the Fifth Judicial Councilor District meeting, held in Atlantic City on April 10, 1931, Dr. Hartwell delivered an address entitled "The Continued Education of the Doctor", in which he reported the progress made in application of his plan to the Academy, and set forth other developments growing out of his original suggestion—with special reference to provision of educational facilities which will be required by those who wish to prepare themselves to qualify as specialists under his plan; and that address may be found in the Journal. (Aug., 1931, p. 639.)

At the Annual Meeting of the State Society, in Asbury Park, Dr. Edward G. Waters, of Jersey City, submitted a plan, for "Control of Specialism", which was, practically, an adaptation of Hartwell's plan to the membership of county and state societies—and, incidentally, we must not overlook the fact that there is a marked difference between the membership of an organization like the New York Academy of Medicine, where admission is in the nature of election to a so

cial club, and that of our county and state medical societies where the admission requirements are of the broadest character.

At the Annual Conference of County Society Secretaries and Reporters, the Waters' plan received further consideration (see Journal of December, 1931) and President Haggerty gave it his endorsement in principle, subject to some slight alterations to effect necessary adjustments. The Executive Secretary, addressing the Delaware State Medical Society in October, reviewed the status of this question, and then, at the December session of the Tristate Medical Conference, in Atlantic City, using the Hartwell and Waters propositions as fundamental, Dr. Thomas J. Harris, of New York, a Charter Member and an officer of the National Board of Examiners set up by the otorhinolaryngologists, endorsed the idea enthusiastically and gave us his opinion regarding the relationship of such Boards and Colleges to the general question. That portion of the Conference proceedings will appear in the March Journal, and Drs. Marsh and Lathrope will find that *more steps than the first have already been taken*.

PUBLIC SCHOOL PHYSICIANS

One of the State Society's most recent and most successful developments, is the Section of School Physicians, first suggested and arranged for by the Executive Secretary, but planned and conducted entirely by Dr. Allen G. Ireland, from the State Department of Education. Two years of trial with a single session—the afternoon of the day preceding the other scientific gatherings—have resulted in such success as to call this year for 2 full days (4 sessions) at the Annual Meeting. The papers read at the Asbury Park meeting by Drs. Knight and White, and published in the January Journal, are deserving of perusal by every "family doctor", and our advice is—*read them*.

COUNTRY PRACTICE—THE OTHER FELLOW

The 5 words heading this editorial served also in the January Journal as titles for 2 of

the most interesting literary contributions it has been our good fortune to receive for publication, and we promise that you will find in them much to think about. Dr. Varney answers the question so often asked during the past decade—why do physicians starting into practice shun country districts?—and Dr. Kuder has, in impeccable prose, written a *poem on the practice of medicine*.

PROGRAM FOR THE ANNUAL MEETING

We are informed that an excellent program for the Annual Meeting to be held in Atlantic City, June 15-17, is practically complete, so far as concerns the General Sessions, but that there is still some space open to volunteered topics in some of the Sections. If you have something good to offer, communicate at once with the Chairman of the appropriate Section, as follows: Section on Pediatrics, Dr. Stanley Nichols, of Asbury Park. Section on Ophthalmology and Otorhinolaryngology, Dr. H. L. Harley, Atlantic City. Section of School Physicians, Dr. Allen G. Ireland, State Board of Education, Trenton. Section on Radiology, Dr. W. L. Herrman, Asbury Park.

LEADERSHIP; PERSONAL AND COLLECTIVE

Whatever else you may have to sacrifice in order to do this:—read Dr. Baketel's Address. His advice concerning the formula for attaining personal, professional success—*"super-service plus efficiency"*—is excellent; his analysis of collective, or organizational, problems, is very interesting, particularly as to giving—*smooth, efficient, economic service that will harmonize with our modern industrial services, and yet maintain the vital, humane, personal element, of which the profession is so proud*; and, his tribute to your Journal as—*a leader among periodicals of its class*—coming from the Editor of one of the most successful medical publications in the country, should be (and by this Editor is) doubly appreciated.

Special Article

SPECIAL REPORT OF TREASURER, DR. ELIAS J. MARSH

REPORT OF RECEIPTS AND EXPENDITURES COMMITTEE ON PROGRAM AND ARRANGEMENTS JUNE 1, 1930, TO JUNE 1, 1931 COVERING THE ANNUAL MEETING OF 1931

Receipts:

Received from exhibitors	\$1000.00
Received from advertisers	475.00
Received from sale dinner dance tickets	532 00
	<hr/>
	\$2007.00

Expenditures:

(See itemized list attached)	\$1814.41
	<hr/>
	\$ 192.59
Less 20% to Secretary of Committee	\$ 200.00
	<hr/>

ITEMIZED LIST OF EXPENDITURES, COMMITTEE ON PROGRAM AND ARRANGEMENTS, COVERING ANNUAL MEETING OF 1931

To Berkeley Carteret Hotel:

Dinners, moving picture operator, hotel charges for entertainers, freight charges, etc.	\$ 560.48
John Wanamaker—prizes	27.63
Daoud Brothers—prizes	20.85
Long distance telephone charges	9.20
Budin Press, dinner tickets and duplicate numbers	7.25
Budin Press, 1300 programs	392.05
Luzenburg vaudeville agency—talent and transportation	130.00
Stiles Express—hauling	5.00
Orchestra—dinner dance	97.00
Franz Imhoff, sign	10.00
Dr. Campbell—boat trip, lunches and buses	217.00
Watchman	15.00
Stacy-Trent Hotel (room for January meeting)	5.00
Budin Press, diagrams, bill-heads, electroplate ...	48.90
Blueprint drawing of exhibit spaces	18.00
Railroad fares, New York and Philadelphia (and expenses)	30.20
Stenographer, as needed	64.10
Tips and miscellaneous	31.75
Commission paid to advertising solicitor	125.00
	<hr/>
Total	\$1814.41

MID-SEASON REPORT OF THE FIELD SECRETARY*

Mrs. E. C. Taneyhill

"Why a school system should devote more time to mathematics, or to English, or to a foreign language than to health education is beyond my comprehension."—*Dr. Willis A. Sutton, President National Education Association.*

"The greatest influence against the reshaping of secondary education to conform better with the known needs of pupils is college entrance requirements."—*Frank G. Pickerell, Superintendent of Schools, Montclair, N. J.*

These 2 quotations are indicative of 2 marked trends in the present educational world: (1) to accord to the subject of health its rightful place as foremost in the fundamental preparation for living; (2) to obtain from the colleges a recognition of this and other practical knowledge as accredited equipment for college entrance.

In the present state of transition the medical profession has a practically unlimited opportunity to reinforce and guide health instruction of school children and their parents. Although teachers do their best, as instructed, to put over the "health content" of subjects taught, their background, in most cases, does not afford them much security for speaking authoritatively on matters that would naturally come up for discussion. They certainly have every opportunity for creating right attitudes toward health practices, but for concrete knowledge in the science and history of medicine (requisite for discussing immunization, for instance) they must, with their pupils, rely on those whose specialized study gives them the equipment essential for presenting such subjects. There is also the fact to be reckoned with that some teachers, even some nurses, are "sold" to osteopathy and

chiropractic, and that teachers have been known to hand out "orangeine" powders and similar "dope" to pupils for relief of headache.

It is evident that this awakening to the vital importance of health instruction cannot be adequately met by a lay educational staff and that, at the moment, the medical profession has its golden opportunity to step into the breach, thus giving, to the already rather well-developed momentum, the right direction and goal.

The Medical Society of New Jersey seems fully alive to this situation. Radio programs are being broadcast from Atlantic, Bergen, Essex, Hudson, and Monmouth Counties, and members are everywhere showing an increasing readiness to address lay groups on medical matters. The Auxiliary in Mercer County is conducting a Speakers' Bureau for dissemination of authoritative information. The Executive Secretary of the State Society is on call for large and important gatherings, while the other officers respond generously to similar requests for their services.

The one employee of the Medical Society who devotes full-time to educational work is the Field Secretary, and her contact is very largely, through the Department of Public Instruction, with the schools throughout the state. The 2 new subjects presented this year are "The Common Cold", and "Medical Quackery and Nostrums". There are, however, occasional calls for last year's talks on "Mental Hygiene" and "The Life and Work of Pasteur".

When the Christmas holidays rang down the curtain on school activities for 1931, the records of the Field Secretary showed that, in addition to filling engagements in different parts of the state during October, she had spent 1 week to 10 days in each of the following counties: Sussex, Warren, Salem, Cape May, Union and Camden. The number of talks given from October 8 to December 23, 1931, was 117, to a total audience of 31,786 individuals. Of the 117 talks, 22 were presented to adult groups; the remainder to pupils, from the fifth Grade through High School. The distance traveled in carrying out this program was 3471 miles.

In appraising the value of this concentration on schools, one must not lose sight of the fact that, scattered throughout the school assemblies during this period, were 843 teachers. In addition to this hearing, we are sometimes asked to speak before the entire teaching staff of a city or community, or before the County Principals' Association. Other adult groups have included Rotary and Kiwanis Clubs, Association of University Wo-

* (Conceiving the idea that a detailed, minutely itemized statement of the Field Secretary's routine day's work, over a period of 1 month would be both interesting and instructive to many members of the State Society, the Executive Secretary decided to attach to her mid-winter report the most recent of her monthly travel and lecture records in his possession. Heretofore having published in the Journal only her Annual Report to the Society—and that being condensed, rather than itemized, it is understandable that so few members have any conception of the immense amount of work she is doing on their behalf, and for the benefit of both the public and the profession. This particular report was neither prepared nor selected especially for this purpose; it is simply the last report received, and was, in consequence, at hand, on the desk, and it is a fair and accurate sample of her month's work, regularly.)

men, Y. W. C. A., Professional and Business Women's League, Welfare Association, Auxiliary to the Masonic Lodge, School Nurses' Association, and, of course, Parent-Teachers Associations and Child Study Clubs. Unfortunately, we were unable to accept the date offered by the Council of Jewish Women in Elizabeth.

We do not wish to lay too much stress on the importance of 1 talk a year to school assemblies or teachers and principals, but we have been repeatedly assured by the latter that the 1 talk does serve to crystalize general impressions, to stimulate interest and to reinforce classroom teaching. In school audiences we are dealing with plastic and receptive minds. Through such audiences we are reaching a vast number of homes in which the parents would never voluntarily seek even elementary health instruction.

We all know that in this day the public is not allowed to make its own decisions about anything. It is bombarded by advertising from all sides—an incessant assault upon the eye and ear—and in no field is it so pitifully gullible as in that of individual health. Continued dignified silence on the part of the medical profession would leave the average man and woman helpless prey to the bombastic claims of the quack and the drugless cults. When the New York Times, The Literary Digest and Good Housekeeping use their standing with the more intelligent classes to persuade them that Vapex—analyzed by the Chemical Laboratory of the A. M. A. as being approximately 7c worth of alcohol, menthol and oil of lavender—will prevent colds or influenza, it is surely time for organized medicine to speak out. Since this cannot be done by full-page advertisements nor by radio refutation of false advertising, and since publications have a keener ear for the jingling of advertising revenue than for the protest of the medical profession, how else can the truth be told except through the ethical channel of public education?

TALKS BY FIELD SECRETARY, NOVEMBER 20
TO DECEMBER 20, 1931

		Adults Teachers Pupils		
Nov. 20	<i>Warren County</i>			
	Hackettstown H. S.	30	600	
	Washington H. S.	20	400	
				1000
	Allamuchy P.-T. A.	35		
" 23	Salem H. S.	22	500	
	Woodstown H. S.	22	600	
" 24	Carney's Point 3-8	6	225	
	Salem P.-T. A.	185		
	Penn's Grove H. S.			
	girls ..	6	225	
	boys ..	6	200	
	Pedrickstown 2-8	3	76	
	Penn's Grove 3-8	7	250	
	Deepwater 3-8 ..		6	200
	Alloway P.-T. A.	150		
" 25	Quinton 3-8 ..		3	125
	Daretown 3-8 ..		5	150
	Elmer 3-8 ..		5	150
	Monroeville 1-8 ..		6	180
				2881
	Thanksgiving recess period			
" 30	<i>Cape May County</i>			
	Sea Isle City Rotary	39		
Dec. 1	West Cape May Sch.		4	45
	Middle Township			
	H. S.		13	300
	Stone Harbor			
	P.-T. A.	24		
" 2	N. Wildwood School		10	150
	Ocean City Kiwanis	39		
	Lower Township			
	P.-T. A.	32		
	Sea Isle City P.-T. A.	20		
" 3	Sea Isle School		5	90
	N. Wildwood P.-T. A.	40		
	Wildwood H. S.		45	750
	So. Dennis P.-T. A.	29		
	Clermont P.-T. A.	35		
				1335
" 7	<i>Union County</i>			
	Summit Jr. & Sr.			
	H. S.		25	600
	New Providence			
	P.-T. A. and sch.	18	6	132
	Hillside P.-T. A.	60		
" 8	Linden Sr. High		15	500
	Rahway Roosevelt			
	School		5	150
	Linden Jr. High		15	350
	Springfield Jr. High		7	200
	Springfield P.-T. A.	35		
" 9	Roselle Park		8	250
	Elizabeth-Cleveland			
	Jr. High		55	1040
	Mountainside			
	P.-T. A.	35		
" 10	Plainfield-Evergreen			
	School		6	200
	Plainfield-Evergreen			
	School		6	200
	Plainfield Bryant			
	Sch. P.-T. A.	50		
" 11	Garwood		14	425
	Roselle-Robert Gordon School		10	225
	Hillside Freshmen		10	240
	Elizabeth-Washington Jr. High		10	360
				4872
" 11	Rahway-Grover			
	Cleveland School		14	460
	Rahway Franklin			
	School		12	425
	Garwood Teachers		25	
" 13	Elizabeth-Hamilton			
	Jr. High		30	700
	Elizabeth Battin			
	High		40	1000
	Elizabeth Washington Jr. High		10	300
				2883
" 16	<i>Camden County</i>			
	Gloucester Jr. Sr.			
	High		31	750
	Collingswood Sr.			
	High		32	700

		Adults	Teachers	Pupils
Collingswood Jr. High		32	750	
Camden-Hatch Jr. High		52	1100	
" 17	Pennsauken Jr. High	36	871	
Camden—Fetters School		6	260	
" 18	Haddonfield Jr. High	26	400	
Haddonfield Intermediate		6	160	
Camden—Whittier School		6	240	
Camden Jr. High No. 1		10	500	
				6731
66 talks		637	19,702	637
				447
Total for month				20,786

Note: The abbreviations mean: P.-T. A., Parent-Teacher Association; S. or Sch., school; H. S., high school.

Medical Ethics

ADVERSITY

John Hammond Bradshaw, M.D., F.A.C.S.,
Orange, N. J.

The saying—"Sweet are the uses of adversity", makes many of us at these times give a grim smile while we intone—"Yeah!" (pronounced with a rising inflection). But adversity may be sweet or bitter, directly according to a man's early training, his education, and his own self-discipline. There is much truth in the statement that more damage is done to men's souls by prosperity than by adversity. The old copy-book formula—"Necessity is the mother of invention"—is said over so often that we are apt to miss its philosophy.

Is not all our schooling given us with the end in view that we shall one day become prosperous? The chief aim of the present day education seems to be that we shall learn how to become rich. We are not taught what to do when he become poor, nor are we taught what to do when our special line of training becomes "a drug on the market". Are we taught what to do when we have nothing to do? Even those who have a superfluity of this world's goods (and also a superfluity of time) often do not know how best to spend that surplus money or that extra time. Pleasure obtained by an effort, generally becomes a sad affair; and generally consists of playing the fool. There is a great difference between pleasure, delight, dissipation and whoopee.

The most expensive things do not necessarily give the most enjoyment.

One's early, or college education, is at fault if one is not taught what to do when one has —"Time on our hands". Our teachers and education are at fault when we cannot meet adversity with a smile.

Esthetics

GRAND OPERA BY RADIO

With the gracious permission of the Editor of the magazine—New Yorker—we reprint here a description of Grand Opera broadcasting as told in that magazine of January 10, 1932.

Box 44, Grand Tier, Metropolitan Opera House, is a busy place these Saturday afternoons, being filled up solidly with Deems Taylor, radio technicians, and little knobs. From it, they control the opera broadcasts. Under the contract signed, opera broadcasting will go on now for at least a couple of years, an hour and a half of it every Saturday afternoon, compliments of N.B.C. Most of the machinery is in Box 44, although the microphones which actually pick up the music are hidden in the footlights and hung over the orchestra, simply drinking it in. There are 3 pairs of them, 1 pair on each side of the stage and 1 over the orchestra. Only 1 of each pair is used. The other is in reserve in case anything goes wrong. N.B.C. wanted to have 2 big parabolic microphones hanging under the balcony, 1 on each side of the house, but the Opera management said no, that the patrons beneath them would get the idea they might fall, or would get the jitters anyway because parabolic microphones look like horse-shoe crabs.

Box 44 was chosen because it has a good view of the stage and because nobody has subscribed for it for Saturdays. During broadcasts it is occupied by 3 N.B.C. men: Charles Gray, Edwin Dunham and Wilbur Resides. Mr. Taylor sits in the rear in a little sound-proof compartment of his own. When he wants to talk, he signals with a little red light. Mr. Gray thereupon turns the music off and Mr. Taylor on. Mr. Dunham and Mr. Gray sit side by side, Mr. Gray before the knobs of the mixer panel and Mr. Dunham before a score of the opera. Mr. Resides sits in front, wearing headphones. Mr. Gray has headphones too. He controls the volume of sound. When the singing is on the left of the stage, he turns up the microphone at the left, and so on, until he gets dizzy. If he does, then Mr. Resides can take his place until he,

too, gets dizzy. Mr. Gray and his alternate also regulate the orchestra volume, so it won't drown out the singers. He is pinched frequently by Mr. Dunham. The men can't talk for fear of disturbing adjacent music-lovers and have worked out a system of signals by pinches. Mr. Gray has to know what's coming so he can turn the mikes *down* for loud passages and *up* for soft ones. Mr. Dunham keeps a few bars ahead on the score. When a crescendo is approaching, he grips Mr. Gray's arm and squeezes. If a really big noise is coming, like the stove explosion in "Hänsel und Gretel", Mr. Dunham pokes Mr. Gray hard in the ribs. Mr. Gray wears a 2-piece headset. With 1 ear he listens to the music and with the other to a group of advisers in the N.B.C. studio, who tell him how the opera is *coming in*.

The microphones in the footlights are padded to keep out the voice of the prompter. It sometimes gets in just the same. These mikes have switches near them. To turn off the orchestra microphones, however, somebody—Mr. Gray or Mr. Resides—has to go backstage, climb 4 ladders, walk a beam 75 feet above the stage, climb down some ladders, and reach a switch. Or, that was the way of it at first. They were going to have it changed; probably have by now.

In Lighter Vein

Hard to Keep Up With Some Joneses

Bob Hicks wants me to believe the story about the man who entered the country post-office and asked, "Have you a parcel for Mr. Jones?"

"I have," replied the postmaster, "but how do I know you're him?"

The man produced a photograph of himself. "Have a look at that", he said, "It's me, isn't it?"

"So it is", exclaimed the postmaster, and he handed over the parcel without another word.—New York Morning Telegraph.

Strictly Painless

"I am sorry", said the dentist, "but you can not have an appointment with me this afternoon. I have eighteen cavities to fill." And he picked up his golf-bag and went out.—Juggler.

Account Overdrawn

Doctor: "This is a very sad case, very sad indeed. I much regret to tell you that your wife's mind is gone—completely gone."

Mr. Peck: "I'm not at all surprised, doctor. She's been giving me a piece of it every day for 15 years."—New Haven Register.

Staving Off a Squawk

Mountaineer (to 3-year-old son): "Ezry, quit pointin' that thar gun at yore little brother. Hit might go off and kill one of them chickens he's playin' with."—Alabama Cajoler.

Lighthouse Observations

HIGH MORTALITY IN APPENDICITIS

In most diseases, it has been possible, at almost any time during the past 50 years, to report a steadily diminishing mortality rate, and that was true of appendicitis, too, until quite recently; when, all of a sudden, we began to read about an increasing percentage of deaths among persons suffering acute attacks of that disease. During the past 2 years, as the number of reports, showing an increasing mortality rate for appendicitis, has mounted step by step, the situation has become rather alarming, especially as the reports do not come from any limited district, but from points scattered all over these United States; and, furthermore, because no one has offered any satisfactory explanation for the sudden change from a diminishing to an increasing death rate, with persistently rising figures. Thinking our readers might like to know something more about those figures, we are giving the following account from American Medicine (April 1931, p. 227).

The Weekly Bulletin of the New York City Department of Health, February 21, 1931, quotes some statistics developed by Dr. Frederick L. Hoffman, in an article concerning the death rate from appendicitis.

It is highly significant that the death rate from appendicitis during 1929 was 18 per 100,000, in 59 cities with a population exceeding 27,500,000. This represents an increase of 50% over the rate of 13.3 per 100,000 in 1910 for 60 cities with a population slightly above 18,500,000.

These figures may not be very striking, but they are indeed challenging after noting the death rate of various European countries for the years 1921 to 1928, which varied from the low figure of 2.8 for Spain, 2.9 for Italy, and 3.5 for Holland, to such high figures as 8.6 for Sweden, 9.7 for Scotland, and 10.4 for Switzerland. The rate for Germany was 6.6, and for England 7.1. The combined figures for 12 countries, with an aggregate population of more than 207,000,000 inhabitants, gave 5.6 as the appendicitis death rate.

The mortality from appendicitis in Canada, during the same period of time, was 12.8 per 100,000, which is more in harmony with but still markedly below, the rate of 17.1 in the United States for the same years.

There are almost as many marked variations of the appendicitis death rate within the United States as there are between Canada and this country. The mortality rate from appendicitis in Los Angeles in 1929, for example, was 13.3; and in Detroit 20.1 per 100,000. One might inquire as to the reason for these figures, and also why Philadelphia should have a rate of 13.9, New York 15.5 and Chicago 19.5 per 100,000.

It appears, also, that in the mortality rate from appendicitis there is an excess in the mortality of men as compared with women. The male mortality rate in the United States in 1920, was 15.1 per 100,000, while the female appendiceal death rate was only 11.3.

Considering that the death rate from automobile accidents for the past 6 years in New York City was only 17.25, and that the combined death rate from measles, scarlet fever, diphtheria and whooping-cough, was 16.13 per 100,000, one can appreciate why appendicitis, as a fatal disease, merits the attention of health officers and the active service of investigators.

It is unlikely that these variations in the ap-

pendicitis death rates can be attributed to differences in diagnosis. Certainly, the symptomatology of this disease is far more definite than that of many other diseases, and medical skill in diagnosing the condition is not so unequally distributed. Nor does the disparity suggest that operations are performed earlier in other countries than in the United States, nor that operations for appendicitis are less successful in this country than in European lands.

The varying distribution of mortality within the United States makes it seem unlikely that diet plays any large part in causation. The distinction of 4 points between Chicago and New York City, for example, and 6 points variation between Philadelphia and Detroit, make dietetic causes appear rather unlikely.

There does not seem to be any marked relationship between temperature and mortality, but it is significant that the lowest European mortalities are reported from the warm countries, Spain and Italy; and the higher mortality rates are found in the colder lands of Scotland and Switzerland.

Deaths attributed to appendicitis and typhlitis have been approximately constant in the United States since 1921. They constituted 1.2% of the total mortality, with an official rate of 15.2, in the registration area of continental United States during 1928. The actual number of deaths in the urban area of the registration states, was more than twice that of the annual number of deaths in the rural sections. Deaths were distributed, according to age, from children under 1 year of age to adults over 75 years, with 25% of them occurring within the period of 35 to 54 years. The continuity of its appearances at all ages suggests no specific cause, as the same fact obtains for encephalitis, bronchopneumonia, cancer, malaria, diphtheria, pellagra, tuberculosis, epilepsy and traumatism resulting from falls.

It is not impossible, of course, that some dietetic factor may be at work, but it is not evident from data available. On the other hand, there may be some relation to the general mode of living, which influences the resistance to infection or increases the inflammatory susceptibility of the appendix vermiformis.

Certainly, the state of facts calls for inquiry. One would expect a disease of the vermiform appendix to have a low mortality rate, because of the definiteness of its symptoms, the simplicity of appendectomy, and the generally popularized information concerning the nature of appendicitis and its medical and surgical treatment. The fact that the mortality rate from this disease appears to be higher in the United States than elsewhere is provocative and should lead to serious inquiry concerning the basic, responsible factors.

Current Events

TRISTATE MEDICAL CONFERENCE

The nineteenth Tristate Medical Conference convened at the Hotel Chelsea, Atlantic City, New Jersey, at 10:45 a. m., on December 5, 1931, with Dr. John F. Hagerty, of Newark, President of the Medical Society of New Jersey, presiding.

Those in attendance were as follows:

New York—Drs. William H. Ross, Brentwood; James E. Sadlier, Poughkeepsie; Thomas J. Harris, New York City; and Joseph S. Lawrence, Albany.

Pennsylvania—Drs. Harry W. Albertson, Scranton;

William Roland Davies, Scranton; Walter F. Donaldson, Pittsburgh; and Frank C. Hammond, Philadelphia.

New Jersey—Drs. John F. Hagerty, Newark; George N. J. Sommer, Trenton; Philip Marvel, Atlantic City; Walt P. Conaway, Atlantic City; J. B. Morrison, Newark; Edward G. Waters, Jersey City; and Henry O. Reik, Atlantic City.

Dr. Hagerty: I believe that I have the privilege of presiding today, and it is a privilege which I appreciate very highly. Following Dr. Reik's suggestion, the first paper will be read and discussed, and then the 2 other papers, having something in common, will be read and discussed together. So, I will call upon Dr. Davies for the first paper on the program.

LOOKING AT BOTH SIDES OF OUR PUBLIC RELATIONS

William Rowland Davies, M.D.,
Scranton, Pa.

While listening to the Inaugural Address of the new President of the Medical Society of Pennsylvania, at Scranton, recently, I realized that Dr. Mayer was presenting in a few words some concrete facts about our material affairs which might, I hoped, be put to use for the general benefit of the medical profession.

We are such enthusiasts about our scientific affairs that our efforts run almost entirely in that direction and leave the material side of our business to take care of itself. We have a duty to perform, to ourselves and the public, which we pass by as being distasteful to our distorted sense of dignity.

Very little constructive thinking is being done, in this age of sweeping changes, to guide the public into a sense of responsibility to us for the things that we voluntarily do for it without charge or that we do, and charge for, but receive little. We have no established and well understood reciprocal relationship between us and the people. While we have revolutionized medical science, in methods of education and practice, it has been done for our mutual improvement, but we leave the matter of economic adjustments to go by default, too often. In making these drastic changes, we have changed our own status and can no longer do things as we once did. We are forced to conform to changing social, political, scientific and economic conditions. Propaganda and influenced thinking go on around us and we go on as though things are as they always have been. We cannot expect outside interests to take up the cudgels of defense, or propaganda, for us, unless we are incapable of that function and then we will be relegated to an insignificant position in the vast scheme of things.

Personally, I got over the idea long ago of being a red-eyed reformer. I have maintained the right, however, of doing some constructive thinking, as you should do, in the event that some opportunity may occur to put such thinking into practice.

This paper may only discuss conditions as they seem to me, and the subject is so intricate that you will find me, at times, talking in circles. If I make myself plain to you it will be on a plea of basic reasoning, gained by experience and observation. If you do not agree with my contentions, my error may be corrected by your advice. We are here for that purpose. You represent the constructive, thinking, leadership of the profession in your several localities, and may see things in a different light. If we do agree, perchance, your

opinions should carry due weight in your own societies, especially if we can hit upon common ground for making plans to better the situations that I shall attempt to detail. We must remember that every man has his personal grievances and ideas, but we cannot now act and think as individuals; instead we must think and act as a whole. When acting collectively, we will step on some individual's personal prerogatives, privileges and perquisites. If he is selfish and strong enough, he may stop the wheels of general progress. It has been done. Many a good cause has been sneered out of court or been talked to death. Plans may succeed only if we concede.

Shakespeare once said, "the whole world was his oyster". Every person was a potential possibility to him. Every person is likewise a potential patient to some doctor and, therefore, "his oyster", which when opened affords some one of a variety of surprises. There is rarely a pearl, sometimes a good oyster, oftener a little oyster, occasionally a rotten oyster, and at times no oyster at all. There are 3 principal things that you can do about oyster-ing: you can learn all about oysters and become a scientific dredger; you can cultivate your oysters and increase the number of the kind that produce income; or, you can run the risk and take them as they run, which is a precarious business. You know that oysters are becoming scarce. Perhaps you do owe it to the oysters to know how to grow and protect them, but if that is all you know, you know only half of the business; the other half, plainly, is how to make them profitable to you. There is a reciprocal relationship in everything that we engage in professionally; that should be understood and respected by both parties if it is fair. For that reason we are going to consider the matter of "Looking at Both Sides of Our Public Relations". How each side profits by using the other.

Not many years ago we were watching with avid interest the influx into this country of great mobs of people from Europe. These, unfortunately, were made up largely of the little oyster, the rotten oyster, or no oyster at all type of humanity. They were to be dumped into the great "melting pot" and be turned into the same sort of stew of which we were composed. They were potential business for the medical profession, whether good or bad or profitable business, if they were gainfully employed and properly instructed.

The results of the methods of absorption which we thought would work almost automatically have proved to be "not so good". It takes generations to change the ingrained ideas of peoples, and those who crowded into this country, came to escape a variety of poverty to which they were habituated by tradition and to which they can fall back with the greatest ease. Their moral fabric is not above mendicancy. Lacking occupation, they revert or hold to their original type, and mendicancy and crime are the ways out of their difficulties. They are, with all the rest of the population, still potential patients of the medical profession. They are, with all the rest of the population, dependent upon us for the conservation of their physical bodies when injured or diseased. This is a contract that we have taken upon ourselves to accomplish totally whether paid for or not. This is not done, however, as a function of the commonwealth and financed by it. It is done by the independently created and internally financed medical profession, with but incidental government subsidies and with plenty of governmental rules and regulations as to how we shall do it. It is, so to speak, here and

there full of holes as a general method and some of the holes are almost too large for patching.

We have always proudly contended that we were able to care for the poor as an incident to general practice. To fit it in as we found it, without feeling it as an oppression, but rather as a pleasure, having its own reward as a good deed done. Note again, that I have asserted that we work as "an independently created and internally financed profession" and we accomplish our ordinary charities by being sufficiently financed, by income from practice, over and above the cost of that service which we give away. There is a definite minimum cost for everything that we do professionally, whether we give it away or sell it. Our trousers wear out with as equal facility when we sit in the doctor's chair of a free clinic, as they do when similarly occupied in our private offices. As an occasional incident in our regular occupation we have been able to finance these things but they are now being organized out of our control. The poverty level that we once recognized as operating for all types of charity has lifted in one spot, particularly, and that is in medical charity. In our case it bears no relationship to normal charity expectancy. People gainfully employed, who could not expect financial consideration from their merchants or landlords, ask for medical charity—they even demand it, as a civil right, because of the way medical charity institutions are financed and offered for public use.

We must admit that times and conditions change constantly and we must conform to changes by arranging our own affairs, or, if we are complacent and unassertive, they will run over us. In our time we have had periods of general prosperity and depression. We have had a great war, with war prosperity, and after that post-war readjustments. We have had a period of property inflation, then financial inflation, and wage inflation; all beyond normal values. The bubble has burst and we find the world over-sold, with all of its commodities over-priced, and in consequence we have depression and unemployment; and the doctor lives right in the middle of it all, and must adjust his affairs to conditions as they change the economic state of the people. The world is loaded with debt which can only be paid by taking a portion out of the wages of those who work or produce values from natural resources. If the primary producers do not work, we secondary people may not be paid either. Our occupation is a constant factor, no matter what the times may be, but the inability of unemployed people to pay us for our work is immediately transferred to our financial system, with us in the same predicament of financial distress.

We have within our own profession a rather complex condition of unemployment which we should consider but are prone to leave to self-adjustment. Certain general and newer economic conditions on the outside affect it, and the trend of our scientific methods within adds to its seriousness. We boast that we are living in a mechanical age which features mass production by machinery, lessened over-head costs by mergers, and super-organizations. The use of *machinery* makes the need of *man power* largely unnecessary. The use of mergers and super-organizations lessens the need of the "executive and brain-worker" type. Census reports show the population as increasing, nevertheless, so that we have unemployment as a consequence, to a certain extent, among the types whose labor is no longer needed.

I saw a mechanical ditch-digger and 5 men finish 200 ft. of ditch of 3 ft. wide and 10 ft. deep in

1 day; a job that formerly required 50 men to do by hand methods. I was in the wheat field of the West a few years ago and saw mechanical appliances taking the crop on 5000 acres of land with the same number of men that would barely serve, by hand power, to take it on 300 acres in the same length of time.

I was in a salt mine, in New York State, a short time ago that could produce 1000 tons per day, and they had a total of 55 men at work in the plant. A human hand hardly touched the product from the time it was attacked 1000 ft. below the earth's surface until it was loaded, finished for the market, into freight cars. A similar condition occurs in the mining of coal. I saw the Detroit Ford Plant able to turn out daily thousands of a cheap product, because machines were made to take the place of hands that forged the original product. We have in our city a bakery capable of turning out 20,000 loaves of bread per day, which announces that "no human hand has touched this product from the time it was started to the time when it was wrapped in its wax paper covering". A human hand, here and there, keeps the machines fed and in operation, but there is a growing fear of allowing human hands to earn the right to feed their hungry mouths by the labor of those same hands. Are workmen no longer to be allowed to earn their bread and salt? I have seen many large hospitals, clinics and medical centers provided with the "last word" in capacity, mechanical and scientific equipment, but with a comparatively small man power on their staffs prepared to absorb the work of 10 times their number when done in the old *individual* way.

We admit, in all of the incidents mentioned, that the output now is better. The ditches are dug *better*; the salt and coal is mined and prepared *better*; wheat is grown and reaped and made into bread *better*; the automobile is a *better* product; the medical and surgical work done cannot be charged with being anything but *better*; but, what is to become of the men who are no longer needed in these processes?

As we see it, these products must be bought and paid for, in the last analysis, by money gained primarily from labor performed and for which wages are paid. The bakery will not continue making its magnificent output, unless it sells to some one who can pay for it. Competent, unemployed bakers, can starve; and competent, unemployed doctors, can do the same thing. The question naturally comes up: Is this *mechanical age*, with its centralization of capital and brain power, going to force itself into a state of communism for the benefit of an increasing population for which there is a lessening opportunity to maintain itself by its own efforts? The French Revolution was not based on hatred of an historic monarchy, but upon the fact that said monarchy would not let the people eat. The present Russian situation differs not basically but in application, in that the people hope to apply modern mechanical methods to the end that all may work little and eat much; a purely animal concept that does not take into consideration the impossibility of levelling human qualities, mental capacities, or spiritual aspirations. Human progress cannot be dumped into an enormous hash and expect to come out anything but the chaotic thing that went in. Idleness begets all of the worst that is in us. Ingenuity demands recognition. Leadership will in time take to horseback and start something. Necessity will still be the mother of invention. Truth, crushed to earth, will inevitably arise again. Progress has never

yet consulted the opinion of the mob for justification.

I trust that I have not too severely bored you with this preamble, but I have tried to jog you out of a complacent contemplation of the things that narrowly concern you as a person, into a state of earnest thinking about things which have to do with our situation as a profession.

Just how independent and self-sufficient are we? Can we control our own destinies, or are we to be fitted into some general scheme of things, whether we like it or not? If we do not assert ourselves, and do our own thinking, some one else will doubtless do it for us; and enough of that has been done already. In the meantime, let us consider some matters, of both major and minor importance, which quite intimately concern us at this stage of our relations with the public. Let us remember, however, that we are not maintained miraculously or by "manna from heaven", as some individuals seem to think, but by the methods that we have established for gaining compensation from service rendered. Our commercial and philanthropic interests sometimes get curiously mixed up. If we try to advance our commercial interests under the guise of philanthropy, we get little but a chance to do more free business. If we try to put over a piece of pure philanthropy, for the common good, we strike a wall of ignorance or find ourselves charged with selfish motives. We lose face with the people when we obscure the real business side of our affairs. The people can be best approached by being businesslike in dealings with them.

Few outside the medical fraternity know how a doctor is produced and why he must be adequately compensated for services rendered. Persons lacking this knowledge will be inclined to charge unfairness when a physician *personally* demands compensation, but when physicians act *collectively* it is different. You, by concerted society action, have been able from time to time to raise your fees to a reasonable stage, and by announcing them to the public as your concerted decision, you have had those fees accepted almost without question. The futility of opposing such mass action is conceded. We lose that influence again when individuals among us refuse to follow the organization's mandates, and flaunt the society's right to regulate their practice. You can see that we have our own internal weaknesses.

When we claim financial consideration because of our philanthropy, we often get some peculiar rejoinder, because of inability of people to understand why we do it. At the hospital where I serve, when I told a man who could pay for an operation but who did not want to, that the staff works continually without pay and that the free service was for the poor only, he replied that "only damned fools would do such a thing, and there must be a catch in it somewhere, for nobody else works like that, for nothing, and you must get money from the state, or the community chest, or somewhere to pay yourselves". As a matter of principle, having no answer at hand for such an argument, which mind you had its good points, I simply stuck for the fee and made an enemy, for I did not get to treat that patient. He thought it was a *hold-up game*, and went out and explained it as such to those who would listen, and who were a plenty.

If the public knew the basic principle of such service, such incidents would not occur, but very few know. Why is that so? We may not be able individually to parade our charities to the public, but our societies can keep the public informed about the method, and concerning the attitude of

the whole profession. Going a step further, we may not ourselves be able to discuss our personal financial situations but our organizations can protect us in that respect.

As we live by fees collected for services rendered, there is but one prominent consideration that affects us as physicians. There must be a sufficient amount of pay for acceptance of his service to cover his living requirements. That sounds trite, but it is basic. If he now prorates his fees on an expectancy of business, such as once was the case, he makes a mistake. The decreasing number of chargeable patients makes it necessary to change his way of making a living. We have our own problem of unemployment, which has many angles.

Perhaps it may be well at this time to detail a list of conditions and causes that lessen the prospect of gainful occupation for the doctor, only a few of which will be discussed. We have for years been in the serious business of stamping out disease and lessening its severity. It is a noble thing to do, but from a financial standpoint "batters no parsnips", as the saying goes. The extra years now allotted to obtaining a medical education shorten the average years of practice. The enlarged cost of that education diminishes the value of the income on the average, if the income is rated on that factor. Free clinics and dispensaries, highly desirable free hospital services, corporation free service, workman's compensation at rates determined by insurance companies, lodge practice, nurses practicing medicine, lay midwife practice, drug store prescribing, the inroads of the cults, the education of the public in better health methods, state clinics, general financial depressions, and the demands of the multitude of so-called welfare agencies, probably lists most of the major conditions serving to narrow the number of people who call upon the doctor with the intention of paying for his service. However good or bad these conditions may be, the fact remains that they are a detriment to the general professional pocket-book.

The doctor is not paid for what his science prevents; he is not paid for what he chooses to do, or is cajoled into doing, for nothing; he frequently is his own worst enemy by selling himself for a pittance of what his service is worth, in certain appointive positions where he renders valuable service to the detriment also of his fellow practitioners who are excluded from competition. When you combine all the factors in this situation, it seems appalling, and it is a fact that "it is a condition and not a theory that confronts" the profession. Admitting this, it is then apparent that the profession will have to devote some of the time its members have been devoting to mental uplift and eradication of their sources of income, to that of what they are going to do about it—from a business standpoint.

Again, I say to you that nothing of moment is being accomplished except through organizations, and, as we are organized, why not use our organization for the perfectly legitimate purpose of safeguarding our personal interests.

In determining our course of action, and providing a policy and plans of procedure, we have opposition to overcome within our own ranks, strange to say. We do not all think alike, and we may have personal interests which make things suit us as they are, for some are satisfied to let things ride, some, unfortunately, do little thinking at all and hate to be disturbed in their lethargy. Hind-sight is a strong feature among us, where some foresight would serve better. The fact is that we are so accustomed to overcoming our personal diffi-

culties by unaided effort that we can hardly imagine our so-complaisant organizations waking up to a sense of the responsibility that rightfully is theirs.

The Lackawanna County Medical Society, meeting at Scranton, has not been entirely derelict in this matter, and has been engaged for several years in consideration of some of the conditions that are flagrant in that locality. We have published a printed pamphlet showing the argument and the plans that we have produced for an operative method which we hoped to put into practice.

Let me state that we prepared the project and mailed copies to our members for study; asking that they come prepared to vote "yes" or "no" on the subject *as presented*, and not to impose upon it differences of opinion that would certainly be found in the independent thinking of so many individuals. At the largest attended business meeting the society ever held, it was passed unanimously, and was thereupon made public as the policy of our society.

It presented our definition of those eligible to charity; of what constituted a charity or welfare institution; how it should be organized, financed and conducted. It restricted free professional service to such organizations as could secure commendation of the county medical society, and required them to conform to certain rules, established by us, if they wished to maintain free medical service. We later strengthened our position by demanding adequate representation on Boards of Directors of all such institutions, the selection to be from a list of doctors viséed by the county medical society.

The whole thing was somewhat revolutionary in character and drastic in application, so it has not yet been generally applied. We are trying it out in one instance where we have 5 physicians on a hospital Board of Directors, functioning as an advisory committee to that Board under the title of Staff Committee, and collaborating with the Staff in bettering conditions. It may have a too general bearing to survive locally, and may need state society sanction and general county society application, to make it a standard, working policy.

The Lackawanna County Medical Society has maintained a most intensive Post-Graduate Course of scientific study with 30 weekly lectures and discussions during the year, by men of local or national repute over a period now of 25 years. I believe that is a record for counties not having any medical teaching institution. We have not failed in keeping our members informed concerning all legitimate advances in science, or about subjects that were open to differences of opinion. This is reflected in the type of practice among our members, and that community profits thereby. We have, however, never been commended by the public for this effort. The commercial side of our affairs, as a subject for the same reasonable study and consideration, has been almost *taboo* until recent years, but we are now able to present to you some concrete results from our deliberations over better business ideas.

The matter of unemployment is worrying the world, in every line of endeavor, at the present time. The number totally out of employment in this country has been estimated at 7,900,000 persons. The number working part-time, or at reduced wages, is an added matter for concern. To us, this means a larger number of people unable to pay for our services, or requiring that our bills be cut to fit ability to pay. The number of cases of sickness, injury, or newly born will not be lessened during this period of depression and, as we

practically take care of them all (about 10% are said to occasionally consult cultists), the situation will appear to us as a reduction of income. Casual service to people of means, for conditions of minor importance, largely ceases also, and the annual total thereby takes another cut.

We might adjust ourselves to these temporary situations if they did not last too long but this condition has existed since 1927, when people of small and large means began to divert their cash to market speculation and not to paying their bills. It is at the nadir of depression at the present time. It is only one condition, however, out of many that we have noted, and the question is—how do we approach the others with our thinking and how do we justify them as an inescapable or a necessary corollary of our way of getting along, or are they injustices for which we may expect to find a remedy. At any rate, there is in them all a composite condition that needs dissecting, the total of which is beyond the limits of this paper. We have, so to speak, an internal condition of unemployment within the profession added to the similar external state of affairs among the people. The roots of this situation wander in many ways and go back to the results of scientific research and the increase of time and money to complete a medical education.

Whether or not we are in a state of depression, there are several factors which must be made known to the public, concerning our methods of financing, for many are asking what it is all about. The public should be informed that the cost of a thorough medical education involves expenditure of a small fortune in cash; 10 years of time in life of the student, during which time he is without gainful occupation and must be totally supported by funds not earned by himself; and, finally, the expense of office equipment and funds to finance him through the early years of practice; all of which, summed up, represent the capital investment which he must put into this business. In actual cash and loss of potential earnings, the investment is approximately \$25,000, and is, in effect, a credit extended to the people before any attempt can be made to get any of his money back. The public does not take part in financing the physician until he begins to serve them. His income is from an expectancy of business for which charges will be made. If the expectancy is materially lessened, the established system "goes on the rocks".

On the average, a physician will practice for a period of 28 years, during which time he will conform to all of the duties and expenses of normal citizenship, maintain an expensive position in society, conduct his practice along established lines, acceding to society's peculiar demands. He will, meanwhile, be charging fees to those he serves, out of which he expects to regain his capital expenditure and pay his running expenses. It is frequently not done. In following this profession, the losses sustained from the premature deaths of physicians alone are heavy, but are carried by their families, and are not a charge upon the public. A comfortable fortune, hazarded upon the chances of a human life, that can be snuffed out the next hour without recompense, or fail in a slower manner by ineptitude or human frailty. The independent fortunes, developed through the practice of medicine and surgery alone, are so infrequent as to be negligible when compared with those who do not arrive at that favorable situation. Many never get even their initial investment back.

This, then, is an unanswerable basic contention: that the doctor must charge the amount, adjusted

by experience, which will properly support him, return his original investment, and keep him properly equipped for the best interests of the community that he serves. The doctor lives a shorter average life than members of other professions, because of the drains on vitality and the exposures to infections that he encounters. He is on the average 28 years of age before he starts the slow process of establishing a practice. Half of his life has been used up in preparation, for the average length of life of physicians is about 56 years. It is evident, then, that the public seldom pays its legitimate debt to the doctor. The return by them of his principal alone, with a fair interest charge should make him independent when he grows old. Spread over a period of 25 years, this item alone should provide him a net return of \$1750 per annum, beyond the legitimate returns that his practice should provide for the actual service rendered.

On a minimum basis, it is evident that the amount which the doctor must charge and collect, to balance the debt of the public to him, I repeat, is that sum which will properly support him, return his principal with interest, and keep him correctly equipped for the best interests of the community that he serves. The smallest sum that will fairly cover all of those items is \$6000 per annum. Statistics for the whole United States show that the doctor's income averages about \$4000. He is getting just 2/3 of what he is entitled to by actual, proved averages. Think this over. The average doctor is not getting his original investment back at all, and his normal needs are cramped by a forced economy.

It should be emphasized that the public takes no part in financing the doctor until he starts to serve its members, with the exception of maintenance of the institutions where he receives his education and to which he pays such fees, or personal service, as they see fit to demand. Moreover, the public, at present, seems to be unusually active in getting as much out of him for nothing as possible, and at the same time is complaining that his system of charging is unjust; declaring occasional instances of overcharging, as the common practice of the profession.

A very few members of the profession are extortionate. A very few are downright good business men. The large majority refuse to combine business sagacity with their professional activities and dignity. The physician's personal needs are too frequently submerged in the presence of conditions that he would have to overcome. As a financial wizard he is usually a total loss, and he is often loved by his own people for his self-inflicted peculiarities, but his widow may have to take in boarders to make up for his folly. Whether a man of his temperament would make good in any other business is hard to say. It is fair to assume, at any rate, that any man of intelligence who would put as much money, long hours, and intensive application into any ordinary business for 25 years as the doctor does, would achieve financial independence; and his actions would not be questioned but would more likely be commended.

The doctor is too often looked upon by the public as a public servant, bound by some law or reason to serve at the public's command, even against his own wish.

These are some self-evident facts that seem to be known to himself alone: That he is a quasi-public servant but is not subsidized by the people for their convenience to serve them regardless of circumstances. He is as independent as any other similarly educated professional man, but he has taught the public to expect to find him ready to

respond to calls, on demand, though he is bound by no law or contract to do so unless properly retained. More than that, he is not financed by any fees for the purpose of maintaining the "ready to serve institution" that he carries on. We should take some ideas from the Public Service Corporations. He is the only, legally, qualified person in the community who can voluntarily give away medical service, which is his personal privilege in correct cases, because there are no other such trained persons who can serve, and his conduct is volitional and traditional but not compulsory, although he does have a "monopoly". Then, who but he himself should assume to order his ways, except justice and mercy, and these should be reciprocal at least.

Notwithstanding these facts, our methods and motives are being questioned, we are being examined by lay and governmental surveys and, gentlemen, the fact is apparent that too few of us know enough about our own internal affairs to be able to slap the "apt rejoinder" right back at them when they ask their foolish questions. It seems that it has become popular for lay magazines to present articles such as "The Dilemma of Illness" or "The High Cost of Sickness", and Congress has had a "commission" appointed to study "The Cost of Medical Care".

Answering these apparent attacks upon us, we read articles by prominent physicians who assume to defend our position, which are well written and suit us, but which react upon the lay reader differently. The attitude of the lay mind individually is not always judicial. The layman sees in these things a charge of venality by the very fact that they have been opened for scrutiny. He rightfully considers illness and bodily injury as a misfortune, and the necessity of paying for this unwelcome visitation is an oppressive thing at best. We cannot blame him for that, if that is all that he sees in the transaction, but we are being forced to defend a situation which he rates as venal and which he hopes is not capable of a defense.

In a general way, let us see how he lacks judgment in his own affairs. The ordinary person's income is commonly absorbed by all sorts of unholy and unnecessary general expenses which go unchallenged because they add to his pleasure or are risks that he voluntarily assumes. It has been shown that he pays on the average more for his chewing gum than he does for his doctor bills, and never sees the incongruity of the situation.

The nation's bill for fees paid to legitimate physicians is \$450,000,000 per year, by a late statistical estimate. This is just a few cents over \$3 per year per person. It is less than 1 cent per day per person, and who can buy chewing gum for that amount of money. The "cat is now out of the bag"; several cats in fact. It is probable that we have been "caught holding the bag", so to speak. The amount that we charge is just a trifle over \$12 per year per family, and that is less than the old time club-practice-doctors charged who got \$1 a month per family with half price for obstetrics and surgery. At our present rates, an indemnity insurance company could insure the whole nation at \$5 per year per person, and pay us off, and make a handsome profit. They charge now a rate of \$72 per year to guarantee the income of a person at \$2500 per year, when sick or injured.

Another of the cats that we allow to be charged to us is—that we have basic fees but over-charge the rich to balance our unpaid-for service charges. The above distribution shows that we do not get away with it. The regular over-charging of the

rich is not found in ordinary practice but does happen in some noted cases, especially for specialist's services. The rich did not get that way by allowing themselves to be so used. It is a function better known in their own practices. And then, there are not enough of them to make much difference if we did pass our losses on to them. You know some one has said, "God must love the common people because he has made so many of them", and they so outnumber the rich that the rich never could make up the balance.

Fortunately, the complaints of individual incidents bear no relation to the preponderance of benefits, and we have a case in the court of public opinion. The people in general are amenable to reason when reason is made evident but we have not been educating them to an understanding of how we operate. We are in a position where we could tell the public to "take it or leave it"; but we should teach them to take it and like it. How this can be accomplished, is for us to determine. It is evident that our system is at fault and we must first determine if we can, or desire to, change it. Whether we change it or not, we have some explanations to make. Because we do not come totally with "clean hands" and pure hearts, some wag will at once suggest that we first indulge in a period of prayer and repentance before attempting to evangelize the laity. It may be that we are rated generally by the occasional unmoral or unethical actions of individual physicians, the preponderance of ethical practice being given no consideration as being our normal state. We have an answer for that. The medical profession has always provided means to save the people from improprieties, both on their part and on that of the physician whom they employ. The medical profession, through its organizations, controls the action of its members by requiring that they agree to certain standards of ethics, methods of practice, and fee-bills of charges. These have been established for public information and the restraint of individual physicians. Those who go outside of these protective measures should remember the legal axiom, "caveat emptor" (let the buyer beware).

The theme of the lay discussion is—what the transaction costs them in money—and not—what is gotten for it? We have that feature to make plain. We know the lack of judgment shown by the laity in the presence of sudden or serious bodily ailment. Advice as to moderation is too frequently discarded and after the physical situation is terminated and the cold financial requirements are faced, which they have voluntarily acquired, extortion may at times be claimed and they may appeal even to Congress to have the "racket" exposed. It is unfortunate that the total financing of human body maintenance from the repair standpoint is habitually hung upon the shoulders of the physician, when the fact is that he controls nothing but the fees that he personally charges. He may advise about economies in the other expenses but few want advice at such times. Demanding excesses for which they cannot pay, they charge the system with oppression. Our system today requires the use of hospitals for certain types of cases which may include any serious situation. In general, our hospital situation today provides liberally for the well-to-do and the charity case only. A type of accommodation within the ability of the ordinary person to pay for, is a rarity. The vast majority of the people who must use the hospitals are of the ordinary, salary earning type. It is unjust to make them buy the accommodations that only the rich can pay for.

simply to save their self-respect. Too many of the people are willing to dispense with this, or are forced to appeal to charity. One does not lose face in the community any more by being in the hospital. All appeal to it as the occasion demands, and to be there is no disgrace. The business office alone may know the financial status of the patients, and they show statistically that by far too many are on the free service.

Hospitals with large, adequate and sufficiently private, accommodations for people of ordinary means, established with basic rates for the housing, nursing, and the technical diagnostic and treatment processes, is the answer to this situation. The professional fee-bill might well be displayed there for its moral effect.

The nursing situation has gotten entirely out of our control. The girl who once was trained to do the menial services of the patient's needs, with a sufficiency of information to carry out the doctor's orders, and who fitted exactly into that situation both in service and cost, has been replaced by a highly trained technician who insists on working in shifts of union hours and at an expense to the patient which exceeds at times the combined cost of hospital and professional service. They are now organized and have legal control of their own affairs by a law, the terms of which are unbelievable, in Pennsylvania. Furthermore, at the last session of our legislature, they allied themselves with the quacks in opposition to our organization. Such technically educated people have a limited sphere of usefulness in our affairs. We need a new order of sick-room attendants to fit in where bed pans, baths and back rubbings are the major requirements; and at reasonable prices.

The present type of nurse will, by request, offer opinions on conditions under treatment, practice medicine, surgery or midwifery, without being under orders of a physician, and, in Scranton, if you please, the Visiting Nurses Association employs a "psychology expert"; for what purpose God only knows.

We have always tried, but never succeeded very well, to protect the public against the charlatan and quack. Our efforts have always been expended in opposition, but seldom in showing the public where it benefited by our endeavors. If we were willing to admit that 75% of all illness tends to improve regardless of the methods used, if no harm is done, then we could show how the cults can claim standing for being curers of disease, without really doing it.

Furthermore, any attempt on the part of the medical profession to eradicate this evil, meets with little favorable response from the general public whose members have an inherent love of being humbugged; they swallow advertising claims as gospel truth, live in the hope of mysterious miracles, and believe that treatments are the one and only thing that we all indulge in. They have not been sufficiently shown by us that there are elements of much greater importance than treatment, leading up to their improvement.

I have found intelligent people who do not employ the quacks, but who favor their right to practice in the hope that maybe they have something mysterious that we have not. You know that the quacks bawl loudly the facts of their repression and we are charged with being an enormous closed corporation that will give no one else a chance at the picking. The quacks knowing that they thus gain such moral backing, which gives them some prestige, often ask legislatures to make them legitimate practitioners, and this is occasionally done legally but never morally.

When opposing such situations, it is a question whether we do ourselves or the public a service. The cults seem to thrive best on the publicity gained by our opposition. In time, their methods fail through not being based on anything real, but they insidiously appropriate a sufficient amount of legitimate method to assume a semblance of professional respectability and, behold, we have the former adjusting osteopaths, who advanced a weird and impossible cult, now giving medicine, doing surgery and obstetrics, of a type governed legally by themselves alone. History has only repeated itself after our years of conflict with homeopathy, which has finally arrived, with a cult which dealt in treatments only with fabulous methods, as an allied branch of our own profession, and still having something on us in the way of profiting by their ability to put across the psychic influence that our opposition gained for them. We are "ballyhooring" them into semi-respectability by a species of advertising best suited to their cases. Our failure has been that, while telling the world how bad they were, we were not proving how superior we are. The cultists have always presented *positive claims* of superiority, false though they may be. The word "guarantee", especially when printed, even though backed by nothing material, catches the public mind. The advertising quack uses the psychic trick to serve his ends, and thousands will answer the bait of his spurious claims.

It might be that we, by disseminating the truth in some auspicious manner, without reference to the things that we oppose, might better serve our ends. Our scientific results are a free gift to the people and our books are open to any who can understand and apply their teaching. It has been shown that medical science dug the Panama Canal. It also, unfortunately, was the greatest ally in the World War. Typhoid, typhus, tetanus, septicemia, gangrene and food infections, the master killers of all former wars, were at a minimum in that war. Parturient women and new-born babies now live because of our knowledge; where once they died by the thousands. The science of hygiene, developed and taught by us, is now a part of every civilized human activity. Water, food, air, sewage, infections and disease conditions are now handled so as to protect the people; where once they carried the seeds of death freely. Having learned the causes of disease, we have in turn discovered how to prevent it in many instances, and are doing so for the benefit of the people, regardless of ourselves. We must admit that we do not know it all and that the laboratories of the world work constantly on problems for the betterment of mankind in things yet undiscovered. That our modern standard of living is the direct result of what we have developed. The desirability of life and the happiness of existence has been made possible by lessening of the state of fear of the things that once devastated human hopes. And with all of this, people live to an average age twice as long as they did previous to modern development of the medical sciences.

It perhaps does seem to uninformed people, who demand positive results, that we practice a negative sort of procedure. We guarantee nothing. We aver that we will apply such treatments, after using adequate diagnostic measures, as are regularly used or are for the time being on trial, and then leave the results in the hands of God, so to speak. To our consternation, the Christian Scientists have come along and taken the last part of our treatment away from us; though we probably never worked very hard at that phase. Furthermore, those who are averse or afraid to leave their

destinies with us and God (pardon the teutonic arrangement), prefer to flock over to the positive cultists who claim to be better than regular medical scientists and Divine Providence combined.

Well applied ridicule might serve our ends. Picture, if you please, an army of 4,000,000 men selected and prepared for war in France, with nothing but chiropractors as draft-board doctors and medical officers. Visionize the soldiers in the camps and trenches, getting nothing but adjustments, for whatever happened to them. Fancy the millions of school children, being examined by the "chiros" for health purposes, and being given a good punch in the back for what ails them. Draw an exquisite picture, if you please, of all the hospitals of the state, with the regular medical men out of their staffs, and the recent barbers, blacksmiths and street car conductors, who have turned chiropractic. Imagine, if you can, the withdrawal of all the benefits that science has produced, with elimination of the legitimate physicians, and the whole business turned over without restraint to the quacks and charlatans; what a beautiful picture you would have to offer. Can you imagine the elimination of all scientific data from every college course dealing with biology, and the substitution therefor of the blatant claims of the quacks? Suppose we issue a bill of particulars to the public, detailing our charities, gifts and philanthropies. Suppose we price them at some nominal rate, and then challenge the world to some form of reciprocal or similar service to match our generosity. What would be the answer, if we notified the public that we were through doing anything for nothing? That everything we did would have a price; that credit was withdrawn, and in the future we would take a leaf from the chain stores, where you pay for things right on the counter or you don't get them.

It is very plain that we have a very strong case; so strong, in fact, that we have voluntarily applied restraints to ourselves to curb selfish possibilities. These are the ethics of practice. We have gone further, and asked the legislature to surround us with certain restraints, for the public good, and to fore-stall any rapacious tendencies that might here and there appear among ourselves. When we have asked to have these same restraints made general for all types of healing, we have not made our position sufficiently plain. Perhaps, whatever we do, whether right or wrong, we must shoulder the burden of upholding the truth and opposing error as we see it, for the benefit of humanity, as a self-imposed duty. We read in the Scriptures: "Ye shall know the truth and the truth shall make you free." That, apparently, is the correct answer. We must tell the world the unvarnished truth in language its people can understand. We have habitually hidden behind a reserve of dignity that could mean much or little and have used language that was above understanding of the listening multitude. For this, we have expected but have not always received a respectful hearing. In the legislature, our dignified attitude and high-sounding phrases mean nothing because we are impugned by commoner speakers whose language and motives are by legislators better understood than ours. We must learn to talk a language which they understand.

We do make mistakes in some instances. In Pennsylvania, we tried to have a basic practice act passed, at the last session of the legislature, but we composed our differences with the devil, a little, by including in the act certain exceptions, by name, and not those of other powerful interests, and got licked for our effort. We did not

tell the truth in language that our hearers could understand, nor was the act asked for truly basic. A basic act must exclude us as well as every cult, as parties at interest, and name no exceptions. A basic act must be the people's mandate to those who wish to engage in healing arts, as to what they must conform, before gaining legal sanction to do so. It must be on its face a public protection measure, for which it will deal in regulations and repressions that are very evidently needed for the public good. If it ever passes, it will be because it has been proved as for the public interest, and not because we particularly want it. It may do some good to have it known that we are now voluntarily observing the most drastic features that its mandates might include. Incidentally, let me say that it would do no harm if we took a more active interest in politics, especially in having legislators elected of sufficient intelligence to make laws for us. The demand for a basic law should emanate from some agency of influence and power, not intimately connected with the regular medical profession, for obvious reasons.

It is evident to those of us who have been many years in practice and whose affairs are settled to their satisfaction, or are permanently beyond the possibility of drastic change, that these things will have little influence in our personal futures even if we revolutionize the whole system. We still remain altruistic, however, and think constructively, which is our normal attitude. Without this, progress would cease in the things we seek to foster. We may even be charged with some selfishness, probably when we agree that we would like to have our sons or those who are to succeed us in this profession, just a little better situated and understood than we have been.

Incidentally, let me state that the "Good Samaritan" business was placed upon a proper working basis when the hero of that "parable" had found someone "beaten and robbed and left as dead" and did the obvious thing about it. He sensed the fundamentals of the situation and produced a demonstration of practical human welfare work previously unheard of and seldom improved upon. Being of a sensible turn of mind, and the needs but primitive, he administered first aid, turned his donkey into an ambulance, and the first hotel that he came to into a hospital, and began to think out ways and means for the success of his venture. This he did by financing the project and hiring the work done that he could not do himself. He even anticipated unusual expense, and provided for that. Nor does the story say that he called in doctors and asked them to serve for nothing on his pet project, but it does intimate that he paid the whole shot, for which he travels down the ages as the correct exponent of how such things should be done. He climaxed the story by closing up his institution with a total experience of 1 patient only, so that the rest of the population might not run in and graft upon his generosity, he being a good business man, having a charitable disposition, but with no desire to over-do the matter. Analyzed, he showed that charity is an individual proposition, which could, and should, be treated upon that basis. He did not pauperize any particular level of humanity as a fixed policy and you can go to Herbert Hoover for a modern application of the same idea.

At this moment the whole country is wrung with anguish over the sad state of the unemployed. Funds are being raised that pass beyond the dreams of former philanthropists. In the metropolitan area of Scranton, containing 300,000 peo-

ple who have an unemployment problem less than in other parts of the country, as we have a basic industry that does not entirely fail, in the mining of coal, we are now promised by pledges voluntarily made by the people, the sum of \$850,000 to take care of the basic needs of the unemployed; and we have 42 welfare organizations.

Not one dollar of the funds in prospect has been budgeted for the purpose of paying doctors who are to take care of these people. There will be more need of doctors among this number than in a similar number of people in more fortunate circumstances, for obvious reasons. Strangely, or not, the physicians have not asked to be paid, in this situation. Stranger still, they never were asked their attitude in the dilemma, as to whether or not they wanted to be paid. As a profession, holding to tradition, they want no such money. It is not to be kept by the poor, however, it is to be paid to interests who have something to sell, which these poor people must have. We have a similar commodity. Can we continue to give it away and finance the cost ourselves?

I have stated that our financing is an internal function obtained only when our service is bought and paid for. In our present situation the business law of "diminishing returns" may find us with such an abundance of business of a sort that we will be bankrupt.

While engaged in the altruistic pursuit of making life more worth-while for the other fellow, let us refer to our old friend Shakespeare again, and listen while he says: "First to thine own self be true, and then it follows, as the night the day, thou canst not then be false to any man."

DISCUSSION

Dr. Hagerty: This very interesting address of Dr. Davies is now open for discussion and I will ask Dr. Sadlier to open.

Dr. Sadlier (Poughkeepsie): I feel rather embarrassed, to attempt to discuss this particular subject. Our Public Relations Committee, of New York State, does not have much to do with the economic situation in medicine. In fact, we have an Economic Committee in our State Society, as a separate body.

There is a great deal of "food for thought" in what the essayist has said, a great deal that is very true regarding the condition that exists at the present time in the medical profession, especially in the larger cities, nevertheless, perhaps I am old fashioned in my ideas, but I cannot quite agree with all the features of Dr. Davies' paper. I well recall, when I was in the first year of practice, sitting on the side lines in our county society when a Fee Bill was under discussion. At that time, 35 years ago, this economic situation was quite in the forefront of thought in that particular county society. A very wise physician of our locality, long since deceased, said very emphatically and very earnestly, that if we all endeavored to make of ourselves as good doctors as possible, and rendered as good service in our community as we possibly could, that there would be very little use in having a bill of that kind, because the people would want that service and would be willing to pay for it. Of course, that was many years ago and perhaps it does not hold at this particular time, especially in this period of great economic stress. However, it was only 3 days ago that I talked with a modern doctor, a rather young man, but one who had rendered excellent service to his community, who informed me regarding his income and I was astounded at the amount. I

have heard it said that the income of doctors all over the country averages only from \$1000 to \$4000 a year, and I have never quite agreed with that because I have felt that any doctor, even under this altruistic regime in the past, who demonstrated his work to the community, must be getting a satisfactory compensation. The information I received 3 days ago convinced me that the young doctor was receiving a very adequate compensation for the work that he did.

I feel that living, as I do, in a city of rather small size, where we know one another better than you do in your big cities, where we are perhaps not so much trespassed upon by cults and Christian Scientists as you are, that perhaps I may be viewing things from a different standpoint, and therefore see less need for organized medicine in adjusting economics than some others do. Furthermore, in my association with the Public Relations Committee in the state of New York, being Chairman of that committee and having to do with certain adjustments, I can see where governmental forces are willing to assist. Dr. Ross will bear me out in this. When in a conference with our State Commissioner of Health a year or so ago, the Commissioner made the specific statement that he wanted no physician in New York State "to do anything for nothing" if his service should be paid for by the state. In our splendid new social welfare law, which was put in operation 2 years ago and takes the place of the old "Poor Law" which had been in existence some 99 years, we have another evidence of where the governmental authorities in the county are in accord with proper financial returns to the physician. While this is not yet thoroughly worked out throughout the state, there are many counties in the state at the present time reimbursing their physicians for each and every call or service rendered to a patient, and when that law has been in operation a sufficient length of time to enable it to be administered properly, we can see where by its operation the physician's income will be very much increased.

Only 2 days ago a representative from the office of the Emergency Fund established in New York State for relief of unemployment, a fund passed at a special session of our legislature, appropriating \$20,000,000 for the relief of the unemployed, came to my office by appointment and asked to confer with me upon the wording of the clause which had to do with the payment of physicians who might be engaged to look after sick persons on the unemployment list. In other words, through the Public Relations Committee of the State Society, he was endeavoring to get adjusted compensation for physicians who do this particular work.

I am a believer in the idea that we should gradually develop in our states or counties a method of decision whereby we will be in time compensated for this work which has been formerly carried on gratuitously. At the same time, if we hold hard and fast to a certain degree of the old altruistic idea, and gradually create this new condition, rather than take too drastic action, I think we will be better off in the end.

Dr. William H. Ross (Brentwood): Dr. Davies' paper is extremely interesting and one cannot have disagreement with it as stated. The medical profession is wrestling with several traditions. It is only 200 years since we were paid solely by gratuities, and we are living under the influence of that same thing today, subconsciously. The medical profession has always charged for services

but has charged in proportion to the social condition of the people. We find a record of that sort even in the oldest civilization that we know anything about. Records, within 2 years, have been found, that go back to the time when for a major operation the physician was to be paid 5 shekels of silver; the same operation on a free man was to cost 2 shekels, and the owner of a slave had to pay for his care 1 shekel. I think we must recognize, and Dr. Davies has put it in as nice a way as I have ever heard, that we have advanced the science of medicine to some extent for our own material welfare, but that has brought with it certain penalties. Social evolution is progressing rapidly, and we realize this when we stop to think of the provisions made for universal education, the development of good roads, the millions of automobiles and of radio sets owned by the so-called "common people". All of these things have set the people thinking and they are familiar to-day with the practical possibilities for preventing disease and they are holding us responsible for the continued existence of preventable diseases. We know perfectly well that there is unrest among the people, and we must give thought to this, whether we want to or not. There is public unrest today regarding the delayed availability of preventive medicine; there is unrest regarding the excessive cost of sickness; and also, regarding overspecialization. There is unrest about the apparent slipping of the family physician from his established position. And then, there is undoubtedly a professional unrest regarding state medicine and the increasing interference with the private practice of medicine, as we have heard so well stated this morning.

Now, these 2 interests oppose each other, and what are we doing about it? Some of our members seem to be expecting the public to take an interest in our economic welfare. I doubt whether the public will do that any more than it will take an interest in the welfare of the legal profession or the welfare of any industrial group. The public is, I believe, asking us for certain things; in medical affairs is looking to us for leadership. I believe, too, that if the people get those things they will, in turn, contribute to us because we are the only authoritative source of medical knowledge. I think the solution of our problems, the accomplishment of what we are after, will be gained in the quickest and easiest manner if we undertake to act as leaders, and assist in the solution of the people's medical problems; instead of hanging back, opposing or obstructing lay efforts to solve those problems.

In his inaugural address at Philadelphia, in June, the President of the American Medical Association, said: "Organized medicine must adjust its relationships to modern conditions and go along with the force of public opinion." I read a few weeks ago, on the title page of the Iowa State Medical Journal, these words: "Organized medicine should take leadership in the solution of medical problems." I have wondered a good deal during the past 2 years if there was any compensation, anywhere at all, for all the time and labor I was giving as an officer, and I have come to feel that there is—because both those quotations are from my own talks of last year. President Judd said another thing: "We have been so intent on developing the science of medicine that we have left the distribution of it to other people." Another of our leaders recently said: "Our storehouses are bulging with the science of medicine, but our distribution is still in the ox-cart days."

There is at present a tendency on the part of

the State Government in New York to pay the doctor for patients who are unable to pay for themselves. Dr. Sadlier spoke of this. The same representative who saw him also saw me the other day regarding the emergency relief work. Think what is proposed in Mt. Sinai Hospital for the solution of these problems; and at the Baker Memorial Hospital, in Boston, which has been in operation now for 1 year; they are conducting interesting experiments, and we may hope for interesting results.

Dr. Harry W. Albertson (Scranton): How shall we go about curing this situation? I do not want you to get the notion that I have no heart in welfare work; for I have, and I believe that we are all willing—each to do his share—to help our fellow-man who is unable to pay for his medical care and treatment, but there is a point beyond which we are imposed upon, and against that we must protect ourselves. Recently, in Pennsylvania, the State Pharmaceutical Association, because its members are suffering in a business sense through the inroads made by proprietary medicines and home medication, has sponsored a series of full page advertisements stating the qualifications of pharmacists, their relation to the public, what they stand for, why the proper sort of pharmacy is necessary and explaining why physicians and pharmacists should work together. Now, I have in mind something of that sort to cure this ill of ours, and I believe such an educational program would go a long way toward doing it. I doubt whether the public realizes the economic situation of the average physician. It has been stated here that the average annual income of physicians is around \$4000. That may be true, but if you could get the income tax figures I think that statement would be disproved. We *do not* want to be radical regarding matters of public welfare; we *do* want to look at both sides of the question; and I think the time is at hand when medical men must realize the necessity for giving serious consideration to the business side of their profession. I am quite sure that has not been done heretofore by the majority of physicians. There was a time, years ago, when education was not developed as it is today; when competition among medical men was greater and the expense of maintenance less than it is today; but all of those things have changed, and we, as medical men, must change our attitude to conform to present day conditions.

Dr. Walter F. Donaldson (Pittsburgh): I think Dr. Davies, like the rest of us, is anxious only that our relations with the public shall be on a proper reciprocal basis. We all fear that the people do not appreciate what we are doing for them. To adjust these relations we shall have to look rather deeply into fundamentals. I believe that our relations with the public at the present time are unhappy, very largely because of the passing from the picture of the old time family practitioner, that being due very largely to the fact that men graduating in medicine during the past 25 years have not had the advantages of a preceptor sitting by while they learned the art of practicing medicine; by which they learned to convince the sick man that they were interested in him as a sick individual and not as a scientific problem; but, instead, have had to learn "the art" of medicine after getting into active practice, and in that way the medical profession has lost many friends.

One other thing is, I think, fundamental. In recent years, in the teaching of the preclinical branches of medicine, much has been said about

the science of medicine, including biology, anatomy, physiology and physiochemistry. The people hear and read so much these days, through lectures, journals, radio and newspapers, about this science that they have come to believe that the physician should be about as well able to adjust a pathologic maladjustment when he is given the opportunity as a machinist coming into the household might repair the electric washing machine. I do not for a moment, nor did Dr. Davies, I am sure, entertain the idea that we should advise our younger medical men to abandon the position of earlier days, which is simply this—that while we attempt to apply the science of medicine we must freely confess that such application depends upon clinical judgment, which after all is human and may therefore err, and that, in consequence, in applying our scientific knowledge we must constantly be in a state of preparation to change our opinion. I believe that if we will impress upon young graduates the necessity of learning the "art of medical practice" and cultivating interest in the endeavor to establish the confidence of the sick man and his family, and get entirely away from looking upon that patient as a scientific problem, and then continue to admit frankly to the public that clinical medicine is *not a fixed science*, we will have done much to reestablish ourselves in public confidence. If we fail to do that, if we continue to let the public believe in chain-store methods, Ford industrial methods, being applied to the practice of medicine, then we need not be surprised if the public is indifferent to the adoption of state medicine.

Dr. J. B. Morrison (Newark): I appreciate the fact that the paper we have just listened to deals with a subject that demands a great deal of thought, but, at the risk of making myself unpleasant, I must say that I cannot concur in all the deductions that we probably were expected to draw therefrom. The profession of medicine—perhaps more so than even the ministry—is a profession characterized by altruism, and if we are going to hope that medicine, as we practice it today, is to be continued, as against the imposition of state medicine, we cannot rob it of its altruism. We are asked to believe in benefits to come from advocacy of the plan that the doctor should be paid for all he does, that he is much underpaid, and yet we do not attempt to dissociate that from the imposition of state medicine. In several counties, in the state of New York, arrangements have already been made whereby the physician is paid by the state for the service he renders to charity patients. The state pays him a *minimum fee* and it is only another step from that to the time when he will be paid for all that he does, and at a *minimum fee*, so that he will have little time for study or advancement of medical science. I fear this question of paying the doctor for his charity work is being overdone. The average young doctor starting out in practice seeks clinical facilities for the experience he may derive and the contacts he expects to make. How many of you, who have served on charity hospital staffs for years, are willing to give up that service? We all know that our apparently lost time will be amply rewarded in from 5 to 20 years.

Regarding medical care of the unemployed, remember that the people of this nation are being asked to contribute millions of dollars, to contribute food, to contribute clothing, for the children of fathers who have had nothing to do for long periods of time—6 to 12 months at a time. Perhaps the only persons in the United States today

who have something in the way of an assured income are the physicians. The physician is doing something all the time; he is never unemployed for several months at a time. How can any self-respecting physician, in this critical period of our country's history, take money for services rendered to the unemployed, when he must realize that every dollar so taken is taken out of the mouths of young children whose fathers are out of work? It seems utterly incredible that any such position should be advanced. I know that we are living in a period of unrest, a period when there are a great many things to be equalized before the medical profession can receive its just reward, but I do not believe that the ideas advanced today are the proper ones to adopt as our line of conduct. I do not believe, either, that the figures given as the average income of physicians are correct, because no one can do more than guess about that matter until the national committee now studying the question makes its report. The average young physician of today starts out with appurtenances that none of us could have afforded. They all have automobiles, and those are not all Fords; they have office equipment of an expensive character; they are well dressed; their children are being educated, and the children of physicians are mostly sent to high school and colleges; and all this costs money. The physician must collect that money in order to spend it. I am inclined to believe that in the state of New Jersey the average young physician has an income closer to \$10,000 or \$12,000 a year. Now, why put a poverty plea before the public? I do not believe it benefits us in any way nor does it improve our standing. I fear that kind of talk—the plea of poverty, the complaint of injustice, the demand for our rights—will only drive us toward the very thing we are trying to steer clear of; namely, the imposition upon the profession of *state medicine* in some form.

Dr. William Rowland Davies (closing): I am very grateful for the discussion of my paper. I tried to put both sides of the question very frankly so that they might be fully discussed. I would like to say that we should not ask a group of physicians such as I see before me, who are satisfied with their state in life, to come to any decision concerning the status of those who are in less fortunate circumstances. Personally, I do not want anything changed for myself, but I know that there are plenty of other physicians who are not quite so well fixed as in the course of the years I have been fortunate enough to become. I am not rich, but I have recovered my original investment, and spent it again of course. If we could get the ideas of those for whom I was appealing, we might get nearer the truth. I realize that no matter what else we do, we must not lose our souls; we have that one thing to retain. Now, if you remember the suggestion about the good Samaritan, the doctor after all was repaid in some way.

It is said that the public will not take an interest in the economics of our profession, that we must do that for ourselves; leadership must come from our side and we must present the situation in such manner as may be found best after studious deliberation. I think that nothing should be done hastily or irrationally.

As to the patients who have no opportunity for treatment, I think it cannot be said in Pennsylvania that any one need go without treatment, and it is certainly true that we do go along with the force of public opinion, but this is now going so

far and so fast that we cannot keep up with it. I recently made up a report of the hospital where I serve, and discovered that out of 5000 people applying during the year for some assistance, only 700 paid for services rendered. That hospital is doing about $\frac{1}{4}$ of the total charity work in the county—the total number of people in the whole county asking for charity being about 17,000.

As to the laity domineering in welfare work, in the Scranton area there are 42 such agencies, running from the larger hospitals down to the Girl and Boy Scouts, and they all ask for some free attention at the hands of physicians. In none of those organizations had they considered it necessary to put upon their boards of control enough men of our type to give them even ordinary advice. Is it not rather strange that a lawyer, a clergyman, a merchant, a labor agitator, are considered sufficient to cover the needs of the Board of Directors of those institutions? If there happens to be a doctor on the Board, it is usually the result of chance rather than intent.

Regarding the income of doctors, did you ever stop to think that the gross receipts of the doctor do not indicate his real income; such receipts being very different from his net income. There is a definite amount received that he cannot keep in his pocket, but must spend to maintain his position in the community.

I am quite sure that there must be set up some form of publicity. We will have to talk things over with the public if we expect to be understood, but I realize that we must remain artists; for I feel that, in an humble way, I am a medical artist.

(To be continued)

Public Relations

"STATE MEDICINE"

DOES NOT THIS LOOK LIKE ASKING FOR IT?

(An Associated Press item clipped from The Newark Evening News, December 17, 1931.)

A plan to administer medical relief to the destitute this winter has been prepared by 2000 physicians and will be submitted to the Board of Estimate tomorrow.

The plan calls for a charge of \$2 a visit, to be paid 40% by the state and the remainder by the city.

Dr. Charles Gordon Heyd, chairman of the medical committee of the Department of Welfare, estimates 400,000 persons will be destitute this winter. The physicians believe about 8000 persons will need medical attention. The proposal calls for 3, visits a week.

GROUP MEDICAL CARE

(Editorial in New York Times, Dec. 16, 1931.)

At the luncheon on Monday, given by the treasurer of the New York Foundation, which is a contributor to the National Committee on the Costs of Medical Care, Dr. Winslow, of Yale, commented on a few of the reports already prepared by the committee. It has done a great deal in the way of research during the 4 years of its existence. When its 5-year program of investigation is brought to a close it will be in a position to make recommendations for the benefit of doctors, nurses, hospitals and the sick people of the entire country. From surveys already conducted, Dr. Winslow draws the conclusion that better service can be

provided at the costs now prevailing if some method of "group purchase" of medical care can be arranged.

He mentioned the group system at Yale as an example of satisfactory service. In several of the committee's pamphlets there are descriptions of how group service of various kinds has worked. In general, the physicians as well as the public have found the plan a good one. One booklet gives the details of the 150 private group clinics in this country. About 12 doctors are on duty at each clinic. Their facilities and the variety of their personnel enable them to give medical care of all kinds at a lower rate to patients who must seek specialists and hospital treatment for different ailments. The doctors' incomes are well above the average for general practitioners in private practices. Thus 27 private group clinics, chosen at random, in 1929 employed 301 physicians; whose average income was \$9747.

Another kind of group service is provided by corporations for their workers. The cost is somewhat lower than that mentioned by Dr. Winslow as being reasonable in certain countries where group experiments have been tried—\$21.81 annually for each individual. One advantage to the patient lies in the preventive nature of the work. When a family or person pays a fixed annual rate for medical service, there is a natural tendency to call the doctor on the slightest chance of need. Consequently, it is possible to make a more intelligent diagnosis and to provide preventive treatment. When serious disease is headed off by prompt treatment, the cost of care is reduced and the patient saves money also through time saved.

One pamphlet published by the committee describes the system in use in 20 rural communities of Canada. Doctors and the public are on record as approving it. The community levies taxes of \$7 to \$10 per family for the full-time services of physicians at annual salaries ranging from \$3000 to \$5000. Other studies are being made. Meantime, those completed are of the greatest importance to an adjustment of medical costs. They may be obtained in full by doctors and other interested persons on application to the committee, 910 Seventeenth Street, N. W., Washington, D. C.

SUPPORT THE COUNCIL ON PHARMACY AND CHEMISTRY

(From Jour. Indiana State Med. Assn., August 1913.)

Very recently a detail man called upon the Editor of The Journal and glibly talked about the uses and value of a proprietary remedy that has been turned down by the Council on Pharmacy and Chemistry of the A. M. A., as not being particularly trustworthy and not coming up to the claims made for it by the manufacturers. When he was told that his product would not be considered until it had been approved by the Council, he promptly countered by saying that the most representative physicians in Indiana paid no attention to the Council's findings and the majority of them were using the product.

We honestly believe that the man was lying, but admitting that there was some truth in his claims concerning patronage accorded his product, we are prompted to say that we are ashamed and humiliated by the admission that there may be some apparently prominent and respected members of the Indiana State Medical Association who are as glib as an inmate of a feeble-minded institute when it comes to accepting and using proprietary

remedies the composition, formula and uses of which are unknown except through the claims of manufacturers or glib salesmen who not infrequently lie like a lot of turnip thieves in order to promote sales.

Our American Medical Association has established and is maintaining at large expense a Council on Pharmacy and Chemistry that is operated wholly in the interest of the reputable and progressive medical men of this country, and its findings are unbiased and trustworthy. Why in the name of common sense should any physician worthy of the name ignore the suggestions and advice given by this Council, and why should any physician neglect to avail himself of such trustworthy help. We are reminded of the comic opera song which we heard many years ago, each verse and the chorus of which ended something like this: "For we are only weak-minded creatures after all". We would change it a little and say that some are more feeble-minded than others.

School Health Department

SUGGESTED ACTIVITIES FOR SCHOOL PHYSICIANS

Allen G. Ireland, M.D.,

Director of Physical and Health Education,
State Department of Public Instruction,
Trenton, N. J.

Hygiene and Sanitation of the Building

- (1) Formulating a code of standards, in class-room hygiene, for the teacher.
- (2) Formulating a code of standards, in building hygiene and sanitation, for the janitor.
- (3) Recommending the purchase of equipment and supplies that will further the health program.
- (4) Formulating a code of standards in cafeteria and kitchen hygiene and sanitation.
- (5) Inspecting, periodically, all parts of the school plant.

Prevention and Control of Communicable Disease

- (1) Directing inspections and procedures for the detection and exclusion of suspected cases.
- (2) Directing inspections and procedures for the readmission of pupils.
- (3) Directing all immunizing procedures.
- (4) Establishing procedures for the care of emergencies.
- (5) Supervising the health of cafeteria and kitchen workers.
- (6) Checking on water and milk supplies.
- (7) Inspecting buildings and facilities and recommending sanitary procedures.
- (8) Coördinating the preventive duties of the school staff.
- (9) Advising methods for the proper care of costumes and towels.
- (10) Reporting cases to the Board of Health in accordance with code requirements.
- (11) Reporting on special occasions.
- (12) Consulting with community health officials.

Supervision of Pupil Health

- (1) Preparing and directing a coördinated program for pupil health supervision.
- (2) Providing for and directing the annual health examination of pupils.
- (3) Examining each pupil annually to detect physical handicaps or ill health.
- (4) Giving special medical examinations to all members of athletic team squads.
- (5) Conducting special examinations for pupils referred for specific cause.
- (6) Giving the medical examination required of applicants for working certificates.
- (7) Directing the recording and the reporting of medical examination findings.
- (8) Giving general supervision to the program of follow-up procedures.
- (9) Assisting with organization of the school nurse's program and supervising the professional features of that program.
- (10) Coöperating with the department of physical education in prescribing hygiene and corrective work for individuals.
- (11) Reviewing and passing judgment on all medical reports, all requests for exemption from school attendance or from participation in school activities, and all certificates of health submitted by family physicians or other persons.

Health of the School Personnel

- (1) Requiring or giving an annual health examination to persons in service.
- (2) Examining applicants for teaching and other positions.
- (3) Examining teachers returning to work after an illness or a leave of absence.
- (4) Advising teachers and school workers who voluntarily seek professional aid.

Dispensary and Emergency Service

- (1) Recommending a policy to govern the extent of treatment to be administered at school.
- (2) Directing all treatments and first aid measures.
- (3) Establishing procedures for the care of major emergencies.
- (4) Administering treatment by courtesy.

Health Education

- (1) Furnishing teachers with data upon which instruction may be based.
- (2) Helping with the development of pupil attitudes.
- (3) Instructing teachers on personal and class-room health practices.
- (4) Conducting assembly programs on health topics.
- (5) Holding group conferences with parents.
- (6) Holding personal conferences with selected referred cases.
- (7) Advising pupils as to the selection of vocations.
- (8) Suggesting the application of hygiene in certain school situations.

Special Classes

- (1) Selecting pupils for special classes.
 - (2) Supervising pupil health in special class groups.
- Mental hygiene—publicity—research.

State Health Department

LABORATORY TEST FOR UNDULANT FEVER

J. Lynn Mahaffer, M.D.,

Director, State Department of Health,
Trenton, N. J.

During the past few years, an apparently new disease has been called to the attention of physicians and health officials through research work done on undulant fever, and this has resulted in the diagnosis of some obscure cases of illness, which have been proved by laboratory tests to be cases of this disease.

The Bureau of Bacteriology of the State Department of Health frequently receives inquiries from physicians regarding the submission of specimens from patients under their care, where they suspect undulant fever, asking whether our laboratory makes such tests and how to submit specimens for examination. The symptoms of this disease are so varied, indefinite and suggestive of other diseases, particularly of typhoid fever, malaria, tuberculosis and influenza, that the physician is perhaps more dependent upon laboratory examinations for the diagnosis of undulant fever than for any other disease.

Undulant fever is an infectious disease due to organisms of the abortus-melitensis group, transmitted by infected cows, goats, swine and, possibly, by other animals. The chief source of infection, it has been well demonstrated, is raw milk from infected cows and goats, but cases have been found due to contact with infected animals either at the time of slaughtering or during parturition.

The laboratory diagnosis of undulant fever is made by examination of the blood for agglutinative properties, and such tests have proved of valuable diagnostic assistance. This is the most practical test, but it can be supplemented by cultivation of the organism from the blood. If it is desired to have a blood culture made, a bottle containing special culture medium will be supplied, upon request, for proper collection of the blood, and the blood specimen for the agglutination test can be collected in the same manner and amount as a specimen is taken for the Wassermann test. When such a specimen is received at the laboratory, the serum is separated from the clot and dilutions are made in salt solution from 1-10 to 1-1280, and tested for agglutinative properties against the Bacillus abortus antigen.

A reaction obtained on a specimen of blood, in a dilution of 1-80 or higher, is evidence that the patient has undulant fever, or has had such an infection at sometime in the past. It has been found, however, that occasionally no reaction can be obtained in some cases of undulant fever, even though it has been possible in such cases to isolate the organism from the blood.

For the year ending June 30, 1931, 180 blood specimens were examined for evidence of undulant fever, of which number 47 gave reactions in dilutions of 1-80 to 1-1280, or higher. Out of 3 specimens of human blood submitted for isolation of the organism, collected under aseptic conditions and planted on the special medium supplied by the laboratory. Bacillus abortus was isolated from 2.

Communications

STATE MEDICAL SOCIETY AND RUTGERS UNIVERSITY POST-GRADUATE MEDICAL COURSES

(Letter from Mr. G. S. Demarest, Editor of Rutgers University Publications.)

My, dear Dr. Reik:

After the customary early season flurry attending upon the preparation of the Post-Graduate Medical Courses for New Jersey physicians, I believe that the program is now in such condition as to justify an informal report to you, containing enough material for publication in the Journal.

The mimeographed material, enclosed along with the other bulletins, was the first issue of printed matter, having been distributed to the 18 members of the Sussex County Medical Society. The other 2 bulletins for Essex and Bergen Counties have just been sent out, and complete our efforts along the publication line to date.

A typed copy of our skeleton program as it exists at the moment is also enclosed for your use, although lacking details for certain centers which have, however, indicated their desire for similar courses. The items noted are likely to be changed in the future, owing to the unavoidable force of circumstances in such a wide-spread and specialized undertaking.

CIRCULAR OF GENERAL INFORMATION

Our Post-Graduate Courses for Physicians and Surgeons, with general or specialized practices in this state, are now in their third successive year, conducted by the Medical Society of New Jersey in coöperation with the University Extension Division of Rutgers University, and 24 lecture series of 8 weekly meetings, on many branches of surgery and medicine, will be given in 15 centers, throughout the state during the spring, by authorities from prominent medical institutions in the east.

Predictions based upon the number of New Jersey physicians in similar classes during the past 2 years, indicate an enrollment of 500 in the present courses, according to authorities at Rutgers University. Lecture courses will be given on recent advance in such subjects as medicine, traumatic surgery, fractures, newer drug therapy, obstetrics, gynecology, applied neurology, and pediatrics. Each of the courses has been arranged by the State Society and the University, in exact compliance with specific requests from the county societies, for whom the courses are conducted.

An early course in "fractures" and in "newer drug therapy" was started in Newton, on December 3. Courses will start in other centers of the state as follows: Newark, 5 courses, starting on dates from January 19 to April 7; Washington, March 9; Camden, April 6; Hackensack, 2 courses, January 27 and 29; Atlantic City, April 6; Bridgeton, April 7; Mt. Holly, March 31; Somerville, March 15 and 18; Jersey City, 2 courses, April 5 and May 6. Centers where the starting date has not yet been announced are Elizabeth, Paterson, Toms River, Trenton, and New Brunswick.

Each county medical society has a special committee engaged in the enrollment of subscribers to one or other of the 5 courses being offered, and this year the fee for any course chosen—complete in 8 weekly lectures—is only \$15.

SOCIAL INSURANCE CONTRARY TO FUNDAMENTAL PRINCIPLES OF DEMOCRATIC GOVERNMENT

(Second of a series of letters prepared and issued by Edward H. Ochser, M.D., of Chicago.)

All forms of Social Insurance are contrary to the spirit of democratic government. They destroy individual incentive, initiative and self-reliance. They substitute paternalistic control for independence of thought and action. We pride and congratulate ourselves on living under a democratic form of government but most of us fail to realize that we are slowly, but surely, drifting away from the true democratic spirit in government; i.e., that we are gradually substituting a hybrid form of government, a cross between bureaucracy and socialism. Personally, I am a firm believer in democracy and believe that many of our present ills are the direct result of already having deviated too far from the fundamental principles of democracy.

Individual responsibility is the foundation of democratic government. If a nation does not educate its citizens to individual responsibility, it will soon have no one capable of assuming public responsibility. Slowly, through the ages, the common man has risen from chattel slavery and serfdom to independence, freedom and personal liberty, and now some well-meaning but misguided people want to undo all this. They want to enslave him again, make him, in fact, a bondsman of the state. Organized society is forever forging new chains with which to shackle the free development of its members. It is forever meddling with the private affairs of its citizens. One of the best illustrations of this statement is found in a recent survey by the Citizens' Bureau, of Milwaukee, which found that said city is engaged in approximately 300 different functions, 1/5 of which have been added during the last 16 years. Milwaukee is no worse in this respect than many other cities in this country. Add to this the activities of the county, state and federal governments, and we find an explanation of the following fact: "In a period during which the population of the United States has increased 10% the number of persons holding civil offices has increased 40% and the amount paid in salaries has increased 150%". Thirty years ago 1 person in every 45 was in government employ, while now 1 in every 12 is so employed.

"It is a profound mystery, why the people of the present generation should so violently run after the very things their fore-fathers so violently ran away from in 1776. One of the chief indictments of King George set forth in the Declaration of Independence, reads: 'He has crected a multitude of new offices and sent hither swarms of officers to harass our people and eat out their substance.'"

In a recent article, Dr. Harry Emmerson Fosdick makes a statement that seems particularly suitable in this connection. He said: "Many of those in society who are dissatisfied with present conditions know what they want to get away from, but they do not know whither they are going." I would add "nor do they seem to have any clear idea as to what they want". Before we adopt new laws, we should make reasonably sure that such laws will not introduce new and greater evils than they are expected to cure; that they can actually be enforced; and that they are not likely to be abused in the process of administration.

A far-reaching innovation, such as Social Insurance, must be viewed from many angles. We must consider its effect upon the general public, the insured, the employer, and the medical and dental professions. If we are deliberately trying to get away from the democratic form of government, having a definite objective in view; and if we are reasonably certain that the goal for which we are headed is worth while and is going to result in general social and economic betterment; an experiment with Social Insurance might be justified, but, even then, it is well to carefully weigh and consider what the wise founders of our government had to say on this important subject. I quote from the Declaration of Independence: "Prudence, indeed, would dictate that government long established should not be changed for light and transient reasons." If we, a nation, are just aimlessly drifting, as we seem to be, we are almost sure to get into serious trouble. We believe that we shall be able to show conclusively, in future articles, that in those countries in which it has had prolonged and extensive trial it actually *has* had serious consequences, and these latter problems will be taken up in subsequent letters.

UNEMPLOYMENT IN RELATION TO THE MEDICAL PROFESSION

(A letter to the Editor, from Dr. S. Rubinow, of Newark.)

The December Stated Meeting of the Academy of Medicine of Northern New Jersey, under the chairmanship of Dr. Wells P. Eagleton, was devoted to a very interesting topic—"Unemployment in Relation to the Medical Profession". The 3 speakers of the evening, none of them a practicing physician, Charles I. Barnard, State Director of Emergency Relief for New Jersey; Commissioner John F. Murray; and Dr. Plant, a psychiatrist; gave each an exceedingly interesting survey of the general situation of unemployment, in our own state as well as in the entire country, pointing out from different angles the various problems involved, but very little being said with regard to the part the medical profession is called upon to play in this country-wide emergency. The aim of this short communication, is to fill this gap and to express the attitude of one of the rank and file of the profession toward the topic under discussion.

Unemployment is a social-economic problem. While during the past 2 years it has become the main issue of our national life, threatening the very foundation of modern society, one must not forget that it is a constant phenomenon of our social order and that even in times of prosperity, more than 1,000,000 wage earners are in the ranks of the unemployed.

If we recognize it as a fact that every citizen carries obligations toward his country and his government, that in time of need he may be called upon to sacrifice everything, even his life, for the common welfare, we must likewise recognize the corollary that the Government also has certain obligations toward the individual citizen. If people are deprived of their livelihood through no fault of their own, the various governmental agencies must come to their aid and furnish them the life necessities, at least those of a minimum standard. This is generally admitted, and throughout the country concerted efforts are being made to meet this problem.

Besides food, shelter and clothing, the most important life necessity is health; not only from the point of view of alleviating the existing suffering, but from the standpoint of preserving the nation and future generation's vigor, physical as well as mental. Evidently, this great task can be carried out only with the aid of the medical profession, the practitioner of medicine and the various health agencies. If the 156,000 medical men could be on a pay roll, officers of the Government, the whole task would be easy enough; the authorities would have only to see to it that the available medical forces were rightly distributed and that the necessary work was being efficiently performed.

But, such is not the case. In our country, far more than in any other, the medical profession is constructed on a purely individualistic basis. With the exception of a small number of salaried medical men in Government employ, (federal, state, municipal) the vast majority of physicians have no legal, no socio-economic, interrelation with society and its authorities. Obviously, these authorities have no legal and no moral right to impose upon this individualistic profession any kind of obligation, just as it does not demand from food-handlers free distribution of food to the needy, or from real-estate owners, free housing facilities for the homeless.

The medical profession may point out, with a justified pride, that it has traditionally stood above all other groups of people in rendering free service to the needy members of the community, and that it always has done so without much grumbling, moved thereto by high professional standards. It has always helped the authorities to meet their obligations to the people without additional expense. The writer of these lines is the last man in the profession to preach a lowering of this traditional standard. The profession is doing, and will continue to do, its share to a greater extent even than anyone has a right to expect.

But, the present economic depression is of such magnitude, is so wide-spread, involves so many people, and is so uncertain as to duration, that it would seem unreasonable to shift the burden of meeting the medical needs of the people in distress onto the shoulders of the medical profession without adequate financial provisions.

One must not forget that members of the profession also have a right to a living of a certain standard; have obligations to their own families; have their problems of old age; in short, have all the ordinary human problems. It should not be forgotten, further, that they have suffered from the depression as have others. Many have lost their life-savings, and all have seen their income considerably reduced. Private hospitals, with their clinics, have gone out in open competition with private practitioners, catering to the middle class, and one wonders whether it is being done for any other but revenue purposes. The wage-worker, the salaried men, the various government employees are all called upon to help the economic situation by a 10% cut in earnings. The average drop of income in the medical profession is from 25% to 50%, as the writer judges from his own observations.

Only few men in the profession with lucrative practices can stand such a drop; and the vast majority of practitioners are threatened with financial distress. Our State Society Secretary, Dr. J. Bennett Morrison, who is well informed, a year ago made the statement, that a considerable number of practitioners in large centers are becoming

unable to support their families; and during the last year things certainly have not improved.

Conclusions to be drawn from the above simple conception of the situation, are self-evident. The various governments (federal, state and municipal) must make adequate appropriations to meet the medical needs of the people in distress, and must adequately compensate the medical profession for the work it is called upon to do. The recognized medical organizations should participate in shaping the work and in the distribution of the appropriated funds. From what sources these appropriations should be made, and to what extent, the writer is not competent to say, but he believes that the richest country in the world, a country with unlimited resources, can find ways and means to furnish the people the foremost life-necessity—health.

In a society constructed on principles of capitalism and individualism no other solution would be just or workable. "It seems manifest, that the most devoted and the most efficient service may be expected from a profession like ours only if its members have reason to be satisfied with their economic status; this is but human."*

Woman's Auxiliary

WHAT PROGRESS TOWARD THE GOAL?

A message from Mrs. Milton P. Overholser, Chairman of the National Auxiliary's Committee on Publicity, says: In place of the usual monthly items I am sending a communication from our National Auxiliary President, Mrs. Arthur B. McGlothlin, together with her permission to abstract from it, for publication in the Journal, such portions as seem adaptable to your state and county organizations.

As space in this Journal is, at this moment, in great demand, the Editor accepts the above mentioned privilege, and submits the following selections:

"As we cross the threshold of a new year, shall we take stock of ourselves to see where we have arrived in relation to the goal which we set for ourselves?

Is there yet a county or state Auxiliary that is not working under the direction of an advisory council of doctors appointed by its medical society? A questionnaire sent last summer to our 37 constituent state units, to ascertain if they had such advisory councils, brought replies from 30 and revealed that 28 of those did have advisory councils. One of our goals for this year is an advisory council for each and every county and state Auxiliary. Where does your own Auxiliary stand with relation to that goal?

Have you, as a county or state group, set a goal for membership? Has your Auxiliary some sort of membership file, by which you have kept a complete record of members from the beginning of your organization; and are you retaining, as members, all of those who have ever belonged? If not, could you not begin, at once, to reënlister them?

It seems to me that each county administration should feel that it had, to an extent, failed in its duty if it did not make a desperate effort to hold in membership, at least all those entrusted unto

*Quoted from an address by Dr. A. H. Freiberg, Cincinnati, Ohio, before the Annual Conference of Secretaries of State Medical Associations, held at Chicago, November 13-14, 1931.

its care by the former administration, and unless its membership is already 100% of the wives of doctors belonging to the county medical society; and, it should attempt to make a definite, even though slight, gain in number of members.

The President of an Auxiliary in one of the sparsely settled western states, where great distances and mountainous country make frequent meetings impossible, wrote that she had received much inspirational material from the various national chairmen this year, but that as yet, her Auxiliary is only a social organization, whose primary purpose is to stimulate its members to attend annual meetings so that attendance of the doctors themselves may be increased. This is a laudable goal. This Auxiliary is already a "reserve force" to its medical society. When the doctors in that state medical society find out how those in the neighboring state societies are using their Auxiliaries to promote understanding between the medical profession and the public, perhaps they, too, may desire to use their "reserve force" for further service, and the Auxiliary in the meantime may be reviewing the work of other Auxiliaries as reported in the state Journals, the Bulletin, the Minutes and Reports of the Convention, and preparing itself for service when called upon.

Some of the newly organized Auxiliaries are attempting nothing more than to bring about unity and solidarity within the profession by means of social contacts with the families of doctors. My observations, during visits to Auxiliaries, leads me to believe that this function of the Auxiliary should not be under-estimated. Medical societies are, apparently, in greater number recognizing the forces within and without the profession that are working counter to the best interests of the profession and the public, and they are feeling the need of a *unifying force* such as an Auxiliary may be, when given sufficient encouragement and guidance by its medical society.

Recently, an outstanding doctor in a county society which has no Auxiliary, objected to the organization of one because, he said, the Auxiliary is merely duplicating the work of other women's organizations. He gave as an example the various types of philanthropic work done by our units. This doctor had lost sight of 2 important factors in connection with the philanthropic projects of most Auxiliaries. First, philanthropic work done by the Auxiliary is related, usually, to some work of the medical profession, such as participation in Christmas seal sales, various types of work for hospitals, sanatoriums and preventoriums, or scholarship loan funds for medical students and students of nursing. Because of the humanitarian appeal of such work to women, it will serve as a bond to hold them together while they establish unity and good fellowship within their group, and while some to whom the educational and legislative programs make a stronger appeal, work under the guidance of their advisors on such programs. Has your Auxiliary a philanthropic goal for this year? Might it not increase interest, if you establish such a goal?

That many state medical societies have prepared educational programs for their Auxiliaries, and have endorsed the National Auxiliary study envelops for use in developing these programs, is satisfying. In an increasing number of county Auxiliaries a few women are being discovered, who are vitally interested in educational programs, and who constitute a real force for interpreting the ideals and the accomplishments of the medical profession, to other Women's Clubs in which they work, by influencing such clubs or groups in the

choice of approved literature, and selection of speakers to be used in connection with their health programs. One of our goals this year is to discover such women, and to urge them to represent the medical profession in other women's organizations by accepting positions of leadership. Are there such women in your Auxiliary, working or capable of working under supervision of your advisory council, in other women's organizations?

The state Auxiliaries have made much progress this year in securing chairmen corresponding to the national chairmen. Our organizations cannot function properly until county Auxiliaries also have such chairmen, who will receive program suggestions and materials from the state chairmen, and who will report to the state chairmen on the progress of county work. The function of the National Auxiliary is to stimulate interest in types of approved work possible to be done, and to serve as a clearing-house for information on the kinds of work being done successfully by the various Auxiliaries. It is obvious that little interest can be stimulated if there are not county and state chairmen corresponding to the national. How near to this goal is your Auxiliary?

During the period between annual meetings, our Press and Publicity Committee, reporting to the state Journals and through the Bulletin of the A. M. A., is our clearing-house for information and news. Has your state contributed its share of news to the state and national chairmen? Our national Press and Publicity Chairman has been very diligent in collecting news, and prompt in reporting, but many of our state chairmen have never reported to her. My dear state Presidents, are *you* positive that *your* chairman is reporting? Is it not one of your goals, to let the rest of the Auxiliary world know what fine work your state is doing, so that others may profit by your example? If your Press and Publicity Committee chairman is not functioning, will not you consider it your privilege, as well as duty, to send a report of your work to Mrs. Overholser immediately? Is she receiving the Journal of your state medical society? Is Mrs. Walter J. Freeman, the Editor of the Bulletin, receiving it?

Where do you stand with relation to your Hygeia goal? We have repeatedly said that Auxiliaries are organized to carry on those projects advised or approved by the State and County Medical societies. The House of Delegates of the American Medical Association, in convention at Philadelphia last spring, asked that we "recognize, as one of our chief activities, the promotion and distribution of this publication through Parent-Teacher Associations, Boards of Education, and similar bodies interested in education".

Do all of us realize that the American Medical Association is publishing Hygeia for the *layman*, to meet his insistent demand for information concerning the functions and care of the human body, and that, if this demand is not satisfied by *authentic* information, he is more likely than not "to go floundering away from scientific medicine"? If any of you are doubtful as to the helpfulness of Hygeia for teachers, mothers, nurses or doctors, write to Mrs. Rogers N. Herbert, 1509 Stratton Avenue, Nashville, Tennessee, for a folder of "Hygeia talks", which will probably convince you. If you are not a reader of Hygeia, write to "The Circulation Manager", 535 North Dearborn Street, Chicago, Illinois, for a sample copy, read it, and let it convince you of its value.

No woman who is promoting the distribution of Hygeia through schools, homes, or other educational groups, should consider herself a magazine

subscription solicitor, but, instead, she should feel that she is an *important factor in a health education project*, devised and promoted by the American Medical Association, for the good of both the profession and the public.

And now, as I write, comes through the mail a fulfillment of one of the Kentucky Auxiliary's goals set at its Annual Meeting, at Lexington, in September, and which I attended—the first issue of the new "Quarterly", the first bulletin, I believe, to be undertaken by a State Auxiliary! Congratulations, Kentucky!

The National Auxiliary does not presume to dictate, it desires only to collect and exchange plans, to advise and to stimulate state Presidents and their Chairmen. The annual conventions and mid-year board meetings are our greatest factors in stimulating interest. It is in those meetings that the values of the Auxiliary become apparent; it is there, that we, by reports, by conferences and discussions, measure our progress, evaluate our methods, and discover our mistakes; it is there that we discover our strength and our weakness; it is there that we set our goals.

We believe that the national mid-year board meetings and conventions are so important in the life of the Auxiliary that every board member should consider it an obligation to attend when reasonably feasible. We are suggesting that each state Auxiliary set this new goal for itself, at its next annual meeting if possible, that it provide sufficient means to insure its state President's attendance at the mid-year board meeting in Chicago, and at the annual Convention in the spring. We believe that every state chairman should make an honest effort to attend the national convention.

Mrs. Joseph Hume, of New Orleans, is the Chairman of the next convention, which is to be held May 9-13 in that interesting old city of the South, New Orleans. Our own President-Elect, Mrs. Walter Jackson Freeman, who so skilfully guided the Convention in Philadelphia, is also a member of the New Orleans Convention Committee.

There, we shall find both pleasure and inspiration. May I hope to meet you there, one and all? May we have the satisfaction of reporting that we have reached all goals set for the current year? There are yet 3 more working months in which to accomplish them.

And will you not all be considering the goals we should set for next year?"

WOMAN'S AUXILIARY TO THE MEDICAL SOCIETY OF NEW JERSEY

Reported by Mrs. George M. Culver, Chairman of the Publicity Committee

The January Executive Board Meeting of the Auxiliary to the Medical Society of New Jersey was held at the Stacy-Trent Hotel in Trenton on Monday, January 11, 1932, at 11 a. m., with the President, Mrs. H. Roy Van Ness, of Newark, presiding and about 75 members present.

The minutes of the October meeting were read and approved.

The Treasurer, Mrs. Edward Clarke, being out of town, Mrs. Campbell read her report. Mrs. Van Ness called on Mrs. A. Haines Lippincott, National Chairman of the Public Relations Committee, and the latter made a plea for every County Auxiliary President to carry out the Public Relations program as arranged and urged that each one should have a Reciprocity Meeting, explaining this at length—that there should be at least 1 Auxiliary meeting during the year, to which the President and 1 member of all local clubs and

organizations, which have a health program, should be invited. At such an Auxiliary meeting, a health program should be outlined by a selected speaker, and literature given out, concerning the relation of the doctor to the laity, the desirability of a periodic health examination, or the value of health education to the public. As this may be our only contact with the laity, cards should be sent out announcing this meeting, and discussion, tea, and a social hour should follow.

In passing, Mrs. Lippincott stated that the A. M. A. Auxiliary President, Mrs. McGlothlan, had praised our own Mrs. Van Ness, and had spoken especially of her efficiency and promptness, thereby putting New Jersey on the map.

Following this, Mrs. Nevin read the report of the A. M. A. Convention, in Philadelphia, last June.

Mrs. Van Ness reported that the New Jersey State Medical Society's Convention of 1932 will be held at Haddon Hall, Atlantic City, June 15-16-17.

Program

Wednesday afternoon, Executive Board Meeting.

Thursday, commencing at 9:15 a. m., opening meeting, when all business will be transacted.

Thursday afternoon, Executive Board Meeting.

Friday, noon, luncheon for Doctors and their wives.

The President, 2 Delegates and 3 Alternates are to be elected from each county.

It was moved, and carried, that we rely upon the Auxiliary Program in the State Society Journal, instead of publishing one of our own.

A copy of the proposed new Constitution was given to all County Auxiliary Presidents, to be studied and gone over in her local Auxiliary, in order to vote upon it, in Atlantic City, in June.

A plan was adopted, for having the State Auxiliary print membership blanks for sale to the County Auxiliaries.

Mrs. Van Ness called special attention to the 53d Annual report of the State Department of Health, from which much useful information on health work may be obtained; and said they may be had, by writing to the Director of Health, State House, Trenton.

All County Auxiliary reports for the year must be sent to Mrs. Van Ness not later than April 15; such reports to be based on A. M. A. report forms. This is most important, in order that our State Auxiliary reports may be ready for the A. M. A. Convention, in New Orleans, in May.

Any one wishing to present a bill, must also have this in by April 15.

Mention was made of Mrs. Taneyhill's lectures, and all County Auxiliary Presidents were urged to have her speak during her schedule time in their respective counties.

County Auxiliary Presidents were also asked to note the fact that, in February, donations will be due for the Annual Entertainment Fund.

It was decided that the spring Executive Board Meeting shall be held in Trenton on March 14. This will be a *closed meeting*; for members of the Executive Board only. There was a discussion as to whether we should pay the expenses of our Delegate to the A. M. A. Convention, in New Orleans, in May, and it was decided that a committee be appointed to consider the matter and report at the March meeting. An Advisory Committee from the State Medical Society has been appointed, as follows: Drs. James S. Green, Elizabeth; Elias J. Marsh, Paterson; J. B. Morrison, Newark; and F. J. Quigley, Union City.

Mrs. Van Ness appointed the following Nom-

inating Committee: Mrs. H. V. Hubbard, Chairman; Mrs. D. Leo Haggerty; Mrs. William Neer; Mrs. James Hunter; and Mrs. A. J. Casselman.

Of the 16 active county auxiliaries, 10 reported, and all of those seem to be in a flourishing condition.

Committees have been appointed as per A. M. A. requests; A. M. A. programs have been carried out; and considerable monies donated to many charities.

There being no further business, the meeting adjourned to the Roof Garden, where a delicious luncheon was served, for which thanks are due to Mrs. George N. J. Sommer, of Trenton, who made all the arrangements. After luncheon, we listened to an interesting talk by Dr. Ellen Culver Potter, Assistant to the State Director of Institutions and Agencies; her subject being "Coordination of Medical and Welfare Work".

Bergen County

Reported by Mrs. LeRoy W. Black

The regular monthly meeting of the Woman's Auxiliary to the Bergen County Medical Society was held Tuesday afternoon, January 12, at the Nurses' Home of the Hackensack Hospital, and a large percentage of the members were present.

The meeting was called to order by the President, Mrs. Joseph Morrow, and the regular order of business was carried out. It was voted to have a card party the evening of January 30, at Bergen Pines Hospital. Mrs. William K. Harriman, of Hackensack, was appointed by the President to select a committee to assist her in plans for the party.

Mrs. H. Halpern, of Englewood, very kindly offered the use of her home for a musicale to be given at a later date. She also offered to secure an artist for us.

Mrs. Samuel Alexander, our Program Committee Chairman, was fortunate in securing Judge Thomas L. Zimmerman, of the Juvenile and Domestic Relations Court, of Bergen County, as our speaker, and he gave us a decidedly interesting account of the work being done by that Court.

Following the meeting, our members were guests of the Woman's Auxiliary to the Hackensack Hospital, at a most delightful tea.

Camden County

Reported by Mrs. W. H. Pratt

Welfare Work was the theme of the first regular meeting of the new year, held at the home of Mrs. E. G. Hummel, on Tuesday, January 5, by the Woman's Auxiliary to the Camden County Medical Society, Mrs. William C. Raughley, President, presiding. A substantial offering for Welfare Work was made by the various members and a committee of 5 members is to be appointed by the President to ascertain the best method of expending this fund. Cards, and a social hour with refreshments, closed this very pleasant afternoon.

Two Board Meetings were held in the early winter: one in late October, at which committees were appointed; this meeting being held in the Walt Whitman Hotel, with Mrs. Raughley as hostess; the next was held at the home of Mrs. Pratt, November 27, when plans for the 2 January meetings were made.

On Tuesday, January 26, a tea will be given at the club-house of the Woman's Club of Camden, by the Auxiliary, at 2:30 p. m. This will be a Public Relations and Reciprocity Meeting, dele-

gates from the various Parent-Teacher Associations to be our guests, together with Delegates from the various Medical Auxiliaries in the surrounding counties, and from Women's Clubs in Camden and vicinity.

Our Program Chairman, Mrs. A. J. Casselman, has secured Wilmer Krusen, M.D., President of the Philadelphia College of Pharmacy, as Guest Speaker.

Mrs. A. Haines Lippincott, Chairman of Public Relations Committee, and Mrs. E. G. Hummel, have charge of the entertainment and have secured Anne Clark and Louise Hummel to give us a dramatic entertainment.

Mrs. William Wescott, of Berlin, is hostess and will be in the receiving line. Mrs. O. W. Saunders is Chairman of the Hospitality Committee for that day. We expect a large attendance and an instructive and entertaining program.

Several of our members attended the State Board meeting in Trenton.

Hudson County

Presented by Mrs. James Murphy, Chairman of the Press and Publicity Committee

The regular monthly meeting of the Woman's Auxiliary to the Hudson County Medical Society was held at the Y. W. C. A., in Fairmount Avenue, Jersey City, on Monday afternoon, January 4; the President, Mrs. George M. Culver, presiding, and 24 members present.

Minutes of the previous meeting were read and approved. The Treasurer reported. A letter of thanks was received from the Jersey City Council of Boy Scouts, for our donation of \$25.

Miss Hetherington, Chairman of Entertainment Committee, reported on the card party to be held in the Y. W. C. A. auditorium, on Wednesday, January 20. This is an annual affair, given to increase our funds for charity.

The following committees have been appointed: Reception, Mrs. McDede, Mrs. Buckett, Mrs. Brick, Mrs. Perlberg and Mrs. James Murphy; prizes, Mrs. Freile, Mrs. Largay, Mrs. C. B. Kelley and Mrs. Perkel; Tables and Cards, Mrs. Maras, Mrs. J. Connell and Mrs. S. H. Culver.

It was voted to donate \$25 to St. Francis Hospital, to be used in connection with its "Bread Line".

The program for the afternoon was given by the President, Mrs. George M. Culver, who read an interesting paper entitled "Those Naughty Germs". This was an original paper, setting forth the many germs that we come up with in our daily lives, and to which most of us never give more than a passing thought, but which are often far-reaching in their effects.

Mrs. Culver announced that the A. M. A. has programs prepared, that are available for the Public Relations and Health Education Committees, for distribution to and for the use of clubs, Parent-Teacher organizations, Y. W. C. A. and Boy and Girl Scout Councils.

Tea and a social hour followed.

Passaic County

Reported by Mrs. Burt W. Botbyl

At the October meeting of the Woman's Auxiliary to the Passaic County Medical Society, held at the Woman's Club, the members were delightfully entertained by Mrs. Owsley Duncan, who gave a one-act play and other readings.

A vote of thanks was given to Mrs. William

Neer, retiring President, and congratulations were extended to Mrs. Charles Russell, President for the coming year. The following officers were elected: Mrs. Charles Russell, President; Mrs. William A. Dwyer, First Vice-President; Mrs. Burt W. Botbyl, Second Vice-President; Mrs. Richard McDonald, Secretary; and Mrs. Sidney Brooks, Treasurer.

It was moved to change the regular meeting day from the third Thursday to the third Monday of January, March, May and October.

County Society Reports

ATLANTIC COUNTY

John S. Irwin, M.D., Reporter

The regular monthly meeting of the Atlantic County Medical Society was held in the Roberts' Room of the Hotel Chalfonte January 8, at 8.45 p. m., with Dr. Harold S. Davidson presiding.

The minutes of the previous meeting were read and approved. Dr. Irwin, reporting for the Treasurer, Dr. Marcus, announced that certain members have not paid dues for several years. The Society's Constitution states that if dues are not paid by January 1 the delinquent member shall be suspended, and if they are not paid by the end of the year, he shall be dropped. While the rule is explicit, these members have not been dropped, and he would like to know what action the society desires to have taken. Dr. Kilduffe moved that letters be sent to delinquent members notifying them that if they did not immediately pay they would be dropped. It was so ordered.

Dr. Kaighn, reporting for the Board of Censors, announced that Arthur von Deilen, D. D. S., was recommended for Associate Membership; and Dr. von Deilen was promptly elected. Dr. Kaighn said that the committee feels that Associate Membership should be by invitation that associate members should be out-standing men in their field of work, and men who are interested in the type of work discussed at these meetings. He went on to say that this is not primarily a social or business organization, but a scientific organization. Mr. Jacob Handloff's application was not approved.

Dr. Stewart, reporting for the Committee on Public Health and Sanitation, said that a number of questions that had been brought to the Committee's attention, among them some articles in "The Voice of the People" section of the Atlantic City Press criticising the Medical Profession. He hoped that no doctor would lower his dignity by replying to such letters. He then read the following report on the present state of public health in Atlantic City.

There is probably no city in New Jersey that can show a better bill of health than did Atlantic City in 1931. With a permanent population of 66,198 given by the last U. S. Census, and a maximum population at mid-season of near 250,000, public health has been conserved by efficient work of a well organized Department of Health, to a degree never before attained. The general public has been taught, through clinics, public talks and radio broadcasts, how better to preserve health and avoid the many pitfalls of contagious and infectious diseases. The water supply is at a maximum of purity and is tested every few days; sewage disposed of by the latest sanitary methods; the milk supply is now handled by the latest sanitary appliances and its source most carefully

guarded; inspection and distribution of food supplies are most carefully watched; all of which contribute to a healthy Atlantic City. An inspection of the summary of vital statistics for 1931 shows very interesting figures; 581 marriage licenses were issued; 1220 births reported, of which number, 977 were from the Atlantic City Hospital; 1190 deaths were registered, 281 of which were non-resident visitors. Of the deaths, it is interesting to note that 75 were under 1 year old; 16 under 5 years; 63 still-born babies. There were 3 typhoid cases from unknown source; in 1930 there were 12 typhoids, 6 of which were non-residents; 111 scarlet fever cases, with 3 deaths; 24 cases of diphtheria, with 1 death; over 3000 toxin-antitoxin injections against diphtheria were given children.

In the 1931 outbreak of poliomyelitis (infantile paralysis), no cases occurred in Atlantic City; 1 case each in Somers Point and Absecon, and both patients recovering. With such a record, Atlantic City can be proud of its efficient health management, and nothing should be done to curtail its future administration.

Dr. Stewart said that the Atlantic County Medical Society should stand back of the Health Department and back of Dr. Salasin, who has been its capable head for so long.

Dr. Davidson said that he was grateful to such Committee Chairmen as Drs. Stewart, Conway and Carrington, and that he wished to prove it by re-appointing them.

Dr. Conway introduced his friend and classmate Brigadier General Delaney, U. S. A., of Washington, D. C.

Dr. Conway, reporting for the Broadcasting Committee, read the program of broadcasts from November 26, 1931, to February 25, 1932, and said that there are opportunities every Thursday during the month of March at 5.30 p. m. for those members who wish to broadcast.

Dr. Carrington, reporting for the Rutgers University-State Medical Society Extension Course Committee, said that this is the third successive year that these Courses have been held. This year the cost is less, \$15 as against \$30, the former price. The tentative program of lectures to be given from 8.30 to 10 p. m. in the Atlantic City Hospital, from April 6 to May 25, embraces subjects like infantile paralysis, and recent advances in obstetrics, gynecology and tuberculosis.

Neither Rutgers nor the society makes any money from these courses. Dr. Carrington hoped that, because of its unusual appeal, every member of the society will avail himself of the opportunity of taking this course. The other members of his committee are Drs. Kilduffe and Scanlan.

The application of Dr. Emanuel E. Nickman, for membership, was read, as was also a letter of resignation from Dr. M. B. Kremens, who has left Atlantic City and is now established in Philadelphia; his resignation was accepted.

A letter from Dr. Souder was read thanking the society for electing him an Honorary Member.

A letter from Mrs. Frisch thanked the society for flowers sent on the occasion of the death of Dr. Frisch.

A letter was read from the Citizens' Small Fee Clinic, saying that there are opportunities for more physicians to become connected with the Clinic.

Mr. Blankenstein, representing the Independent

Indemnity Co., spoke on the Group Accident and Health Insurance sponsored by the State Society.

Dr. Davidson introduced the speaker of the evening, Dr. Walter Freeman, Professor of Neurology at George Washington University Medical School, who spoke on "Intracranial Aneurysms". An abstract of Dr. Freeman's talk follows:

Aneurysms of the cerebral blood vessels are not infrequent causes of subarachnoid hemorrhage, especially in young people. In older individuals, aneurysms may grow to some size and produce symptoms through compression of structures at the base of the brain. Most aneurysms appear to be of congenital origin and may be multiple; less frequently, they are due to arteriosclerosis, syphilis or embolism.

The symptoms of unruptured aneurysms are rather vague and seldom found on account of the small size of the sac. Occasionally, a large aneurysm will behave like a tumor at the base of the brain. However, when the aneurysm ruptures there is an acute catastrophe, characterized by sudden, violent headache, pain and stiffness in the neck, vomiting, fainting and coma. The picture may be that of cerebral hemorrhage, including the hemiplegia and frequently glycosuria. The blood pressure may be elevated, pulse slow, and respiration difficult. The reflexes in the upper limbs are generally increased, while those in the lower may be lost. The bilateral Babinski phenomenon is common. The ocular fundus may show edema on one or both sides, sometimes with hemorrhages. The spinal fluid usually shows blood or a yellowish tinge. In many patients, premonitory signs of leaking aneurysm are present, consisting particularly of sudden, violent, unexplained headaches with stiffness of the neck lasting for a few days and then subsiding. These attacks are of great importance since they should lead to the suspicion of aneurysm and the avoidance of lumbar puncture, since that operation is dangerous and sometimes fatal.

In treatment of ruptured aneurysm, lumbar puncture is to be avoided and indirect measures for control of intracranial bleeding inaugurated. The best immediate procedures are free venesection and administration of oxygen. The patient should have the head low, and be turned frequently. If the condition grows worse, 50% glucose may be injected intravenously or transfusion be performed. The patient should be dehydrated during the stages of recovery, fluid being given only after 3 days. Prolonged rest in bed with a minimum of exertion is essential in the hope that the clot will become firmly organized and further ruptures avoided. The headache may be treated by anodynes and caffeine; insomnia, by hydrotherapy and massage, although hypnotics may be necessary. Passive movement of the paralyzed limbs will prevent contracture. Recurrence of the hemorrhage may be recognized by the patient, on account of the peculiar splitting character of the headache and also by a rise in temperature otherwise unexplained. Such an occurrence calls for repetition of the vigorous primary measures. It may be stated, as a generality, that a patient recovering from subarachnoid hemorrhage has aneurysm, although a subdural hematoma may sometimes give the same picture.

Intracerebral hemorrhage with rupture into ventricles is apparently always fatal. Larger aneurysms are not so prone to rupture as the smaller ones and seldom require treatment. The

prognosis in aneurysm is uncertain but not entirely bad, even when rupture has occurred.

Dr. Freeman's paper was discussed by Drs. Davidson, Scanlan, Kilduffe and Davis.

Atlantic City Hospital Staff

Joseph H. Marcus, M.D., Secretary

The monthly meeting of the General Staff, Atlantic City Hospital, was held in the Auditorium, December 18, 1931. Meeting called to order at 8.30 p. m. by the Vice-President, Dr. Samuel Salasin; Dr. Harold S. Davidson, Acting Secretary,

The Scientific Program was presented by Dr. C. H. deT. Shivers, Chief of the Urologic Service. In addition to his report, he presented the following motion pictures: (1) Extensive extravasation of urine; (2) Colling's bar operation through perineal fistula; (3) French and German films dealing with genito-urinary surgery.

For the purpose of acquainting myself with the technic of the best renal surgeons, I recently, accompanied by Dr. Collings, of New York, took a 2 months trip to Europe where we visited all of the prominent urologic clinics in Vienna, Berlin, Paris and London. We were not particularly impressed by what we saw in Vienna, but in Berlin had an opportunity, through our friendship with Professor Von Lichtenberg, to study carefully the methods and operative technic used on his service of 200 beds in St. Hedwig's Krankenhaus; at least 150 of these beds were occupied by patients having had some renal operation.

Some of their indications for operations on the kidney would not meet with approval of the average American surgeon. For example, many of the operations are nephrotomies for drainage, on patients with chronic pyelonephritis. They prefer this procedure to the retrograde catheterization through a cystoscope, which plan is generally used in this country. In addition to the drainage, a decapsulation and nephropexy are done on all such patients, the former to destroy the chain of lymphatics, as they believe in this clinic that most of the kidney infections are due to extension by way of the lymphatics from the lower genito-urinary tract, and are not blood-borne, as we have been taught; and the second, for fixation of the kidney in all cases where its original bed has been disturbed by operation. Diathermy is extensively used in this clinic on all cases of pyelonephritis, prostatitis and certain bladder conditions where no pathology is found.

To return again to our own hospital service, we are greatly indebted to all the departments in the hospital for the excellent assistance rendered us. This is especially true of the Medical Department, for through the efforts of its members we have been able to successfully operate on certain patients who were bad risks, especially those showing advanced cardiovascular changes.

The addition this year of a Graduate Student in Urology, from the University of Pennsylvania, has been a great aid to our department. Dr. Sommer is doing his work well and he is a great help to us in teaching the new internes as they come on service. Our patients are unquestionably getting the best of care, as shown by the low operative mortality in a class that is universally made up of bad risks. For their assistance in this work, I wish to thank my associate, my assistants, and especially Dr. Johnson, for the time he has given us in administering spinal anesthesia.

During the past year we have had 81 major urologic operations with a 2.46% mortality, and 27 minor operations with no mortality; or, a total of 108 operations, with but 2 deaths, 1, due to uremia in an old man who had retention for 48 hours before being sent to the hospital, and 1 due to a bad cardiac condition.

We feel now, in cases of advanced cardiorenal disease, that the 2-stage operation for prostatectomy gives the patient his best chance. Preliminary suprapubic drainage, brings about a greater renal improvement than does the urethral catheter.

Dr. Charles L. Bossert presented the annual report of the Genito-Urinary Clinic: There were 4338 treatments to out-patients of the genito-urinary clinics; 128 ward patients admitted; 6502 treatments to out-patients of the syphilis clinics; 901 blood Wassermann tests; 18 spinal fluids examined; 51 dark-field examinations; total number of treatments given, 10,840; and total number of cystoscopic examinations, 154.

Dr. S. M. McGeehan presented the following case of "Fibroma Diffusum of the Penis". J. F., white, aged 75, admitted June 1, complaining of massive swelling of the glans penis, with multiple fistulas through the glans as well as the distal end of the shaft, with difficulty and slowness in voiding. Father died at 90 and mother at 80 years of age; "Consumption" being the cause. Married, 1 son living and well. General health good; uses tobacco; moderate use of alcohol; no drugs. Had phymosis lanced at age of 17; circumcision at 35; gonorrheal infection at 20, with no recurrences; accidental fracture of ribs on left side at 55.

Has had trouble with the penis for past 30 years, increased greatly in past 3 weeks; difficulty in voiding, and dysuria with marked swelling of the glans.

Three days after admission, a peroneal cystostomy was done for bladder drainage, and a pezzar catheter inserted through the wound; 9 days later, excision and removal of necrotic tissue, followed by wet dressing to clear up the infection present; 20 days after admission, amputation of the penis, through shaft near the root, with peroneal drainage continued. Specimen sent to the laboratory for further study. The specimen measured 5 by 6 cm., grayish white in color, and that most marked in the area beneath the glans, and apparently not involving the corpora cavernosa to any marked extent. Under the microscope, the sections showed an extreme grade of diffuse, fibrous, connective tissue over-growth, without any histologic evidence of malignancy, hence the diagnosis of *fibroma diffusum*, resulting, no doubt, from chronic inflammatory origin. Patient made an uneventful recovery.

Testimonial Dinner in Honor of Dr. Milton S. Ireland Given by the Atlantic City Hospital Staff at the Madison Hotel

Reported by Harold S. Davidson, M.D.,

On the evening of January 5, 1932, the Staff of the Atlantic City Hospital, numbering 65 physicians, gathered at a testimonial dinner for Dr. Milton S. Ireland, at the Hotel Madison, and wished him his due measure of enjoyment and happiness upon his retirement after 30 years of practice in Atlantic City.

Dr. Ireland, Chief of the Obstetric Department

of the hospital, has been the attending physician at the births of more than 2000 Atlantic City children. He is a member of the Board of Education, a life-long resident and prominent figure in civic and financial affairs.

A year ago Dr. Ireland underwent a serious operation and emerged from almost a death bed to take up again his many interests. Dr. Willard Kinney, of Philadelphia, the surgeon who operated on Dr. Ireland, was one of the speakers at the dinner last night, and revealed that he had ordered Dr. Ireland's retirement.



DR. MILTON S. IRELAND

Milton S. Ireland, the son of John A. and Susie S. Ireland, was born on November 12, 1881, in Atlantic City, where he attended the grammar schools and graduated from the Atlantic City High School in 1898. He received his degree—as Doctor of Medicine—in 1902, from Jefferson Medical College and then served during the hospital's fiscal year 1902-1903 as an interne at the Atlantic City Hospital. Following a further period of post-graduate study at Johns Hopkins Hospital, he entered into practice in Atlantic City, and, specializing in obstetrics, became connected with the Obstetric Dispensary of Atlantic City Hospital.

In 1906, Dr. Ireland took as his wife, Mabel B. Shetzline, daughter of Henry and Margaret Shetzline, of Philadelphia.

From 1906 to 1909 he served as Chief of the Obstetric Dispensary, and then became one of the Visiting Chiefs of the Obstetric Department, from which position he now retires after serving through a quarter of a century.

Dr. Ireland is a part of history of the Atlantic City Hospital, and his long, faithful and loyal service has been closely associated with the devel-

opment of the hospital and its Obstetric Department to the institution's present high standing.

He has also been prominent in business circles of the city, especially in connection with various building and loan associations and banks.

He is a member of the Atlantic County Medical Society; the Medical Society of New Jersey; the American Medical Association; the Medical Club of Philadelphia; the Nu Sigma Nu Fraternity; and now becomes an Emeritus Member of the Atlantic City Hospital Staff, of which he is a Past-President.

Oliver Wendell Holmes once said: "Every man is an omnibus in which all of his ancestors are seated." If this is so, then "Milty's" ancestors were kind and genial, for these qualities radiate from him always; they must have been loyal, for his friends can testify that he is; they must have been loved, for his friends are legion; and they must have been skilled in their various fields of endeavor, for Dr. Ireland holds an outstanding reputation in his chosen specialty. His hair is only gray, as yet, but, it ought to be white—as all the rest of him is.

And, so, on this occasion of his retirement from active duty, we gather to pay him tribute; with the hope that his genial smile and willing friendship may gladden us all for many, many years to come.

BERGEN COUNTY

Charles Littwin, M.D., Reporter

The Annual Meeting of the Bergen County Medical Society was held January 12, at Hackensack Hospital. The minutes of the last Annual Meeting and last regular meetings were read and approved.

Dr. Edward Clark reported for the Public Health Nursing Committee, and submitted individual reports for some of the members.

Dr. Pallen stated that little had been accomplished so far by the Cancer Clinic Committee, except that a survey of the county is now being made by the American Society for the Control of Cancer.

On Maternal Welfare, Dr. Wilson reported that he had investigated the situation, and when a full committee is appointed, further study will be made to ascertain what may be accomplished for Bergen County.

Dr. Wolowitz had no report for the Public Relations Committee, but spoke about the successful course on Gynecology and Obstetrics which the Educational Committee had sponsored.

The Welfare Committee, of which Dr. Alexander is Chairman, was active in keeping 2 obnoxious bills from being reported to the Assembly.

Applications for membership have been received from: Drs. Geoffrey C. H. Burns, of Demarest; Henry R. Balze, of Leonia; Paul Angellilis, of Hackensack; Charles G. Prather, of Oradell; and for associate membership: Drs. Ward C. Denison, of Ridgewood; Frank Sava, of Hackensack. Dr. Geoffrey C. H. Burns was elected to membership, by transfer from the Philadelphia County Medical Society.

The report of the Nominating Committee was read by the Secretary. There were no further nominations from the floor, and on motion of Dr. Black, the nominations were closed. The following officers were then unanimously elected: Walter W. Schmidt, President; Samuel Alexan-

der, Vice-President; M. Scarla, Treasurer; Spencer T. Snedecor, Secretary; Charles Littwin, Reporter.

Dr. Morrow, the retiring President, made a brief speech before presenting the gavel to Dr. Schmidt. He spoke feelingly of the honor of the office and the support which he had received during the year. In accepting office, Dr. Walter Schmidt made a short address, as follows: Dr. Morrow, I knew you and worked with you before you came to Bergen County, and I feel perhaps better qualified to speak of your accomplishments than most of the members of this society. My recollection of you before Bergen County called you, brings to my mind fond thoughts of your untiring work; your fine spirit of coöperation; and your good fellowship. It is almost needless for me to say that your efforts and accomplishments here in our county are known in every county and municipality in this state. My fondest hope and ambitions will be realized, if I prove able to conduct this office, that you have just vacated, as efficiently and as fairly, as you have.

Fellow members, it was with a great deal of reluctance that I accepted this honor you have bestowed upon me, and I realize it has come at a time when Bergen County is on the threshold of a new era. The completion of the George Washington Bridge will, beyond doubt, cause an enormous influx of population, and with this influx will come more physicians, and more physicians will mean a growth in our county society. We must prepare to welcome these incoming physicians; we must be active in greeting and adjusting the new men to our organization, and I believe the medium of Junior Membership gives every one of us an opportunity to bring a newcomer to our meetings as a potential member. I feel that our society will experience a tremendous growth during the next few years, and we must make ready for it.

Along this line of contemplated growth, I think the time is here when we should seriously consider employing an Executive Secretary. I never realized the great amount of work our secretary has had to do, nor do you members, perhaps, realize the possibilities for doing more, if we had a man to keep up the contacts which are made daily and to conduct all the follow-up work to keep our members interested, and I hope that during my term of office, this plan will be accomplished.

As to our meetings, I believe that the greater part of routine business can, and should, be transacted at the Executive Committee meetings. I am sure that the actions of that committee will be approved by you, and in so doing our monthly meetings will be free for the scientific programs planned; but still, your frank discussion on any or all subjects is earnestly invited. We want our meetings to be of interest as well as beneficial.

The committees I have appointed were thought out with care and each appointment was given serious consideration. I have endeavored to give representation, not only to the hospitals in our county, but also to our membership considered from the stand-point of geographic location, and I trust they will meet with your approval.

I have but one request and that is for the closest coöperation and friendly feeling among all of us. Let us put aside and forget our personal affiliations; let us not be split into cliques or clans; let us all work together for a common

good—to make this society, as an organization, the leader in all that we would achieve for the good of our profession.

And so, fellow members, let me again assure you that I cannot, in words, express to you my appreciation of this honor, and can only say that I will endeavor to the best of my ability to fulfill the duties that go with this office.

Dr. Schmidt then took the chair and proceeded with "Old Business".

On its third reading, the amendment to the By-Laws, to create a "Junior Membership", was unanimously adopted by the society, as follows:

Chapter 3, Section 1 (A)—Junior Membership.

Every regularly licensed physician who has resided in the county less than one year shall be eligible to Junior Membership, which shall not entitle him to vote, to hold office, or to be a member of the State Society or American Medical Association.

There shall be no dues, but the admission fee shall be \$5, which shall be deducted from the dues of the first year if elected to regular membership.

Section 1 (B).

Every Junior Member shall automatically come up for election to regular membership at the end of a year's residence in the county.

Dr. Black made the motion that Dr. S. E. Armstrong, of Rutherford, former President of the society, and his guest at the meeting after his recovery from a long illness, be elected an Honorary Member of the society, which was promptly done. Dr. Armstrong was greatly touched by the honor, and replied fittingly to the tribute.

Dr. King reported on the serious illness of Dr. Cone, of Westwood, and, on motion of Dr. Littwin, it was resolved that a committee be appointed to call on Dr. Cone and convey the sympathy of the society.

The meeting was then turned over for a Scientific Session, and Dr. Pallen introduced Dr. William P. Healy, Attending Gynecologist at Memorial and Roosevelt Hospitals, New York City. He gave a very excellent talk on "Pelvic Neoplasms". This he illustrated with lantern slides, and after a lively discussion, opened by Drs. Corn and Arons, a collation was served and the meeting adjourned at 11.30 p. m.

BURLINGTON COUNTY

Roscius I. Downs, M.D., Reporter

The regular meeting of the Burlington County Medical Society was held at the Burlington County Hospital, at Mount Holly, Wednesday, January 13, with the President, Dr. Curtis, in the chair, at 1.30 p. m. There were 27 members and guests present, the latter including the State Society Officers, Drs. Hagerty, Morrison and Reik, and Delegates from Gloucester County, Drs. Ulmer, Sherman and Ristine.

A report of the Public Relations Committee was given by Dr. Tracy. Several meetings had been held, and several talks to organizations in the county had been given by different members. A definite program of such talks has not yet been completed.

The subject of the Post-Graduate Course of lectures in Burlington County was presented by the Chairman. It is now the third year for this work; 2 years ago several members attended courses in Trenton; last year a class in Burling-

ton County was organized, with the lectures covering several subjects; with the idea that a class will continue each year in this county, we have planned to have a series of 8 lectures on one subject, and have selected "Newer Drug Therapy" to be presented by Drs. Gould and Goldring, the lectures to take place at the Burlington County Hospital, at 4 p. m. on Thursdays, beginning March 31; members are asked to subscribe now.

Dr. Hagerty expressed his pleasure at being present, and on the subject of Post-Graduate Extension Work, he said: "It was surprising how well our courses were taken up in the larger cities, where such success was hoped for but not expected. Newark will have 4 courses this year with several hundred members in attendance. One course, on 'applied neurology', will be given in Newark at a cost of \$15 by a teacher whom some of our members, and many other physicians have traveled to Vienna to hear. A course will be given in each county of the state except one. I consider this is one of the best works sponsored by the State Society. Among other things accomplished, this will help preserve the family doctor, and reduce the necessity for so frequently consulting specialists."

Dr. Morrison, on the subject of Post-Graduate lecture courses, said that some members had asked why the plan had not been conducted by the Society alone, and the answer is that the expense would be too great without the aid of Rutgers University. The university, aside from having the machinery and personnel for such work, persuaded the State Legislature to appropriate \$10,000 for this work, thus permitting the individual fee to be reduced to \$15.

Dr. Reik said that this was one of his periodic visits. The December Journal was largely taken up with the report of the County Society Secretaries and Reporters Annual Conference, which this time was almost a Burlington County affair. In the January number we will find the Presidential Address of Dr. Kuder. These annual conferences of the secretaries and reporters are growing progressively better, and Dr. Reik enumerated a long series of beneficial results which have accrued to the State Society and individual County Societies from this source. He reported that the work of the State Society has progressed even more rapidly than usual this year. President Hagerty appointed the Special Committees immediately after the annual meeting, and all of them are at present diligently striving to solve their respective problems.

In the Welfare Committee a sub-committee has under consideration at the moment the advisability of asking the Legislature to amend the Medical Practice Law. There is a lively discussion as to whether the time is opportune.

Dr. Ulmer, of Gloucester County, was pleased to be present as a delegate, with Drs. Sherman and Ristine, and he invited any or all of us to their meeting on Thursday, when Dr. John A. Kolmer will be the principal speaker. He commended our bulletin and spoke of the Group Insurance plans on which committee he is a member.

Dr. Richard D. Anderson, Chairman of Section for Practice of Medicine, introduced Dr. H. L. Bockus, of Philadelphia, who took for his subject "Diagnosis and Medical Treatment of Gall-Bladder Disease", and gave a very instructive talk, of which the following is an abstract:

The liver secretes bile steadily for the whole 24 hours and stores the excess in the gall-blad-

der. Food, especially fat, in the duodenum stimulates contractions of the gall-bladder, and dilates the sphincter at the end of the common duct, increasing the flow of bile for fat digestion. Therefore, if a functioning gall-bladder is removed, indigestion results because of the lack of bile.

Diseased gall-bladders fall into 2 groups: (1) those with evidence of infection, past or present; (2) those where there is no organic disease of the gall-bladder but stones are present or there is faulty cholesterol metabolism. The infection group, comprising slightly more than 50% of all cases, probably is caused by material from the right colon passing through the portal veins or lymphatics to the liver, and then the bile-duct; this is associated mostly with chronic colon stasis and chronic constipation, and ascending infection, mouth infection, or typhoid infection is infrequent. In the second, or cholesterol group, gall-stones are found, and these patients are mostly females of middle age, robust, with the short neck, and a relation with pregnancy or menstruation is frequent.

In diagnosis, the acute biliary colic is not difficult to recognize but this occurs in only a small proportion of cases. Colic is present in only 20% of gall-stone cases. The commonest symptoms are gas, dyspepsia, bloating, fulness caused by reflex gastric disturbance and abnormality of the gastric secretions. Also, in most cases, motor disturbances such as gastrospasm, pylorospasm, or hypermotility of the stomach, are present. A second group of symptoms occurs in the toxic group; headache, malaise, vertigo, neuralgia. There is usually a history of indigestion, attacks 4 to 6 hours after a large meal composed of much fat, and usually in the evening; attack often follows physical exertion such as jolting or jogging. Again, there is the relation to pregnancy to remember, for 40% of cases occur during pregnancy or just before the menstrual period.

Certain laboratory work must now be done in the procedure of making a diagnosis. Cholecystography is universally adopted, as it shows the presence or not of a normally functioning gall-bladder. Loss of shadow means loss of function. This shows the presence of stones by positive or negative shadows. A positive diagnosis of stones can be obtained if the gall-bladder is functioning. Stones are present in 85% of gall-bladders with loss of function. It is possible to have an advanced degree of diseased gall-bladder with a normal cystogram, but not probable. X-ray pictures of the gastro-intestinal tract are often helpful. Biliary drainage gives the same type of information as cholecystography, and is most valuable in gall-stone diagnosis, by showing microscopic elements of stone in a functioning gall-bladder.

A large proportion of these patients are primarily surgical, but a certain mild group, mostly of infectious origin, with functioning gall bladders, can be treated medically.

In the diet, fats should be greatly reduced for those who have high blood cholesterol level, or with presence of stones, or local presence of chronic infection. We can often feed fats to patients with low cholesterol content, and stasis of function with no stones. These patients tolerate fruit juices, carbohydrates, and cooked-fruits well. Advise large quantities of water. Under hygiene, advise moderate routine exercise; ½ hr. walk in the early morning is good, as are also abdominal and setting-up exercises.

Several groups of drugs are beneficial. For a

biliary antiseptic, use urotropin, 25 to 50 gr. with ½ to 1 dram of sodium bicarbonate, 3 times daily. Also tetro-iodophenolphthalein, 5 to 10 gr. 2-3 times daily, for 2 weeks, or the salicylates. To stimulate bile flow, use decholin, 0.025 gm. 2 or 3 times daily. Do not use this in acute cases or with stone in the bile duct. For elimination of bile, use the salines. An aid to digestion is pancreatin, 30 gr. with sodium bicarbonate 30 gr. to be used 1½ to 2 hr. after meals. For palliative relief, use atropine or belladonna; Tr. belladonna, 10 to 15m, sodium bicarbonate, 5 to 10 gr.; glycerine, 5 to 15 m.; in peppermint water for each dose. Dilute hydrochloric acid after meals may help.

The youngest patient with an operative gall-bladder condition, in his experience, was 16 years old.

At the close of his talk, Dr. Bockus was given a hearty vote of thanks for his excellent presentation of his subject.

A representative from the Independence Indemnity Company, of Philadelphia, outlined the State Society Group Accident and Health Insurance plan now in operation, which costs members only ½ the usual premiums. Total disability pays \$50 weekly for 52 weeks; premiums beginning at \$60 a year, up to 50 years increasing in proportion as the advancing age. There is no limitation regarding other policies carried. Of course, protection ceases if society dues are not kept paid to date.

CAMDEN COUNTY

R. L. Sharp, M.D., Reporter

The regular monthly meeting of the Camden County Medical Society was held in the Camden City Dispensary, on Tuesday, January 5, at 9 p. m., with the President, Dr. E. G. Hummel in the chair.

Dr. William G. Moore, 1576 Mt. Ephraim Avenue, Camden, was unanimously elected to membership.

Dr. T. K. Lewis presented an excellent paper on "Recent Advances in Nephritis Therapy", which was discussed by Drs. Mahaffey, Lippincott, MacAlister and Kline.

Dr. J. C. Lovett spoke on "The Diagnosis and Treatment of Pre-paralytic Poliomyelitis", and Dr. B. F. Buzby on "The Orthopedic Care of Poliomyelitis". Dr. A. L. Stone opened the discussion, which was continued by Drs. Mahaffey and Hummel. Dr. Hyman Goldstein gave a very fine survey of the recent literature on the "Pathology of Poliomyelitis."

Dr. J. L. Nicholson, 205 Washington Terrace, Haddonfield, Past-President of the society, presented his resignation of membership, because of illness, and the society then unanimously voted to make him an Honorary Member.

The meeting was one of the best attended for some time; 71 members being present.

CUMBERLAND COUNTY

E. S. Corson, M.D., Reporter

The Newcomb Hospital was host to the County Society for the Quarterly Meeting, January 12; and the newly-elected President, Dr. Frank Shepard, of Millville, presided. Dr. H. P. Loder, of Bridgeton, was elected a member. Drs. T. S. Shepard, Millville; Elias Bellak, of Leesburg, and Edward K. Thalheimer, Vineland, were proposed

as members of the society. On the announcement of the Secretary of the State Society, that the state dues would be reduced \$2, the county society voted to reduce the local dues \$3, and refund the added amounts to each member. Mr. Blankstein, representing the Insurance Company carrying the State Medical Society's risks, gave a very clear explanation of the comparative value of this policy with others. This is noncancelable, has no age limit, while careful study of the cancellable feature of other companies, indicates that one attack during the year renders another attack of the same disease a cause for cancellation. No other company will assume a risk after 60 years of age.

Dr. E. S. Corson acted as Chairman for a general discussion of "Medical Economics". The Collection Agencies have been found unsatisfactory. The dead-head list has failed. The plan as used in Woodbury seems to have been satisfactory for several years. The members meet monthly for supper and delinquent patients are discussed and rated, so that their standing is known to all and treatment is refused them by others until they have satisfied their present doctor. The Chairman emphasized the necessity of adopting modern business methods — monthly itemized bills; deduction of percentage for payment in 10 days; the employment of a collector; the use of carbon copy at each visit; use of telephone when taking over new patients from other doctors, to learn their financial status. A committee was appointed to consider a plan for recommendation to the society.

The Petrolagar Laboratories Incorporated presented movietone laparotomies by Dr. H. O. Jones, Assistant Gynecologist at the North Western University Hospital, Chicago. They were perfect in detail, and enabled the audience to follow each phase of the operation.

ESSEX COUNTY

Essex County Medical Society

Frank W. Pinneo, M.D., Secretary

The Essex County Medical Society has devised a plan for assembling items of medical interest from all the hospitals, medical clubs, and sections of the Academy of Medicine of Northern New Jersey, through some member in each institution appointed for that purpose, and who will (if the request is heeded) deliver to the County Society Reporter, or, if preferred, to the Journal Editor, such matter each month; to be offered for publication in the State Society Journal. Such a monthly report may be as short as the Reporter chooses, and consist of any subject matter he wishes, and will carry his name as furnishing it for his institution. The desired achievement is—to bring such county organizations to the attention of all State Society members, by means of interesting and readable medical news; and, also, thus to aid the Journal in further development as a medium of exchange among its readers.

Dr. Lowrey, the President, has addressed a personal letter to the President or Secretary of each of the 24 different medical organizations in Essex County, and it is hoped that responses will show an interest in the publication of information concerning, at least, some of the excellent work done in this county. It will be to the credit and honor of each organization responding, and it will help in making the Journal more useful to all.

The first club to send a contribution under this

plan has already acted, and we are glad to append to this report a gratifying account of the January meeting of the Doctors Club, which is noted for its active, scientific, progressive spirit, combined with a fine kind of sociability expressed in its private monthly meetings.

Doctors' Club, of Newark

Charles Frederick Baker, M.D., Secretary

The regular monthly meeting of the Doctors Club, of Newark, was held on Monday evening, January 18, at the home of Dr. B. F. Furman, with 16 of the 21 members present, and Dr. James H. Lowrey presiding.

The following cases were reported:

Dr. Edwin Riggins, of East Orange, reported the following case:

A young man, in a rather serious automobile accident, caused by the driver falling asleep at the wheel, struck his head against the top of the car, but did not appear to be seriously injured and even assisted the other occupants of the car who were more seriously hurt, next day complained that he had a headache, and the headache lasted 2 weeks. That condition was followed by a period free from symptoms. Later, the patient's disposition became changed; was morose, silent, or sulky, and his condition gradually grew worse until December 31, when a cup fell from his right hand and later he found there was partial paralysis of his right hand and leg. He was removed to a hospital where a lumbar puncture caused the symptoms to become worse. X-ray examination of the skull revealed no evidence of fracture. A subdural hemorrhage was suspected, and operation was performed by Dr. Eagleton, who found a very extensive hemorrhage into the subdural space over the frontal and parietal regions. Recovery was uneventful.

Dr. John Gray, of Newark, reported 3 case histories.

(1) Study of a section of a tumor attached to the tendon of Achilles, which showed soft, yellow areas and was found to be a zanthic-type of tumor containing no giant cells. Diagnosis was a fibroblastic type of sarcoma in a zanthic tumor of the tendon sheath. Malignancy of such tumors is not marked.

(2) Breast tumor in the areola region 1 in. from the nipple; found to be a prickly cell epithelioma, originating from the skin epithelium with extension deep into the breast.

(3) Patient previously had symptoms of appendicitis which subsided without operation. Several months later, a hernia operation was done, during which mucus oozed into the operation area. Eight months later a mass developed on the right side. Operation revealed large amount of mucus-like material in the right abdomen, and the appendix almost entirely sloughed off. Diagnosis was mucoid carcinoma, originating in appendix.

Dr. Clymont MacArthur, of Newark, reported 2 cases.

(1) A cardiac patient admitted to City Hospital had been vomiting the day before and still had severe abdominal pain. Three years previously, had been treated for heart trouble and 1 year ago cerebral embolus occurred, causing a permanent hemiplegia. After admission, he vomited persistently; temp. 102°; rigid abdomen; slightly fibrillating heart; petechiae in mouth and on eyelids. Diagnosis—subacute, bacterial endocarditis, with abdominal spasm. Recovery.

(2) Pregnancy at term. First baby 8 years ago,

weighed 6 lb. Since November 1, patient has had pains nearly every night, lasting 15 minutes, and evidently accompanying or causing uterine contraction. Radiograph showed fetal head at the brim of pelvis, and measurements by a special method showed pelvis generally contracted and the head disproportionately large. It was decided that a dystochia was sure to develop, and cesarean section was done. The baby weighed 9 lb. and 2 oz.

Dr. C. F. Baker, of Newark, exhibited radiographs taken before and after treatment of a corporic ulcer, and a second ulcer of the pyloric canal along the lesser curvature. Examination at the expiration of 6 weeks showed marked diminution in size of the craters of both ulcers; the second having almost entirely disappeared. Treatment had consisted of rest in bed, Sippy diet, no operation.

Academy of Medicine of Northern New Jersey

Adrian Ralph Kristeller, D.D.S., Secretary

At its regular January meeting, the Academy of Medicine of Northern New Jersey had as its guest Dr. W. Wayne Babcock, whose interesting paper on "Diagnosis and Treatment of Cancer of the Large Bowel" was enjoyed by all present. He had numerous slides of great interest to the gathering.

The essayist of our next meeting will be Walter E. Dandy, M.D., Professor of Neurologic Surgery at Johns Hopkins University, who will read a paper on "Treatment of Meningitis and Brain Abscess". The meeting will be under the auspices of the Section on Eye, Ear, Nose, and Throat.

Eye, Ear, Nose and Throat Section

Academy of Medicine of Northern New Jersey

A. Russell Sherman, M.D., Reporter

The regular monthly meeting of the Section was held on Monday evening, January 11, the Chairman, Dr. Charles W. Buvinger, presiding.

Dr. William H. Hahn presented a paper on "Retinal Photography", which procedure, while in no sense a substitute for drawing or actual observation, is of the greatest value in obtaining, easily and quickly, accurate records of progressive fundus lesions, especially of the disc, vessels and macula. Moreover, it possesses one advantage shared by neither drawing nor ordinary ophthalmoscopic examination, namely, stereopsis. Dr. Hahn gave a lantern slide demonstration, illustrating the Nordensen camera and the technic of using it, together with many interesting photographs which he has obtained with that instrument.

Dr. O'Connor, discussing Dr. Hahn's paper, called attention to the possible medicolegal value of photographic fundus records.

Dr. H. H. Satchwell said that it seemed to him, as an internist, that the fundus camera would be of inestimable value in obtaining records of vascular conditions, both in actual diagnosis and for teaching purposes.

Dr. Benjamin B. Adelman read a paper concerning "Retinal Detachment and its Treatment by the Operation of Guist". He discussed some of the theories regarding the cause of retinal detachment, including those of Leber, Gonin and Guist, and described in detail Guist's operation, which constitutes a superficial cauterization of the choroid with potassium hydroxide, after it has been exposed by one or more trephine openings through the sclera, in the neighborhood of the previously localized tear in the detached retina.

GLOUCESTER COUNTY

Henry B. Diverty, M.D., Reporter

The regular meeting of the Gloucester County Medical Society was held January 21, at the Oakwood Country Club. The following members were present: Drs. Ralph Hollinshed of Westville; H. L. Sinexon, O. R. Wood, of Paulsboro; Chester I. Ulmer, Gibbstown; M. F. Lummis, Victor I. Barrows, I. W. Knight, W. J. Burkett, of Pitman; A. B. Black, Mickleton; F. G. Wandell, S. F. Ashcraft, Mullica Hill; William Pedrick, Glassboro; H. M. Foorder, Williamstown; Don Weems and H. W. Stout, Wenonah; Fuller Sherman, Harry Nelson, H. B. Diverty, J. Harris Underwood, of Woodbury and Dr. William Crain, of Woodbury and Mt. Ephraim and Dr. Rhoads and wife, of Westville, Dr. Church was delegate from Salem and Dr. Emma Richardson, delegate of Camden; E. E. Downs, of Woodbury; and B. A. Livengood, of Swedesboro.

The principal speaker was Dr. John Kolmer, of the Graduate School of Medicine of the University of Pennsylvania. The subject of the address was the "Specific Treatment of Pneumonia". Discussions followed by Dr. Underwood and Dr. Hollinshed. Many questioned Dr. Kolmer on his subject. Dr. William E. Crain, former member of the Camden County Medical Society, was transferred and elected to be a member of the Gloucester County Medical Society. Notice was received through Dr. Diverty that Rutgers University and the Medical Society of New Jersey are offering members of the county society a choice of several excellent Post-Graduate Courses, at the very low cost of \$15—just half the price of the previous 2 years.

HUDSON COUNTY

Harry J. Perlberg, M.D., Secretary

The regular meeting of the Hudson County Medical Society was held at the Carteret Club, Jersey City, on Tuesday, January 5, with Dr. W. W. Brooke presiding. The minutes of the previous meeting were accepted as printed in the bulletin. The following report of the Executive Committee was presented. The following Committees were appointed by the President: Maternal Welfare, S. A. Cosgrove, Chairman, Frederick J. Quigley, George B. Spath, William A. Pinkerton and Edward G. Waters. Public Health, B. S. Pollak, Chairman, Arthur P. Hasking and Joseph Schapiro.

It was recommended that the Hudson County Medical Society, through its appropriate committee, arrange for a Post-Graduate Course in Tuberculosis.

It was suggested by Dr. Schwarz, Chairman of the Membership Committee, that new members be introduced into the society by the Membership Committee, at a dinner, at which the 5 Past-Presidents should be present, which idea was favorably considered.

Dr. Maras stressed the necessity of having the children in the various communities Schick tested.

The matter of having the assessment of dues to the State Society cut down, so that more money would be available to the County Society, for necessary purposes, was brought up by Dr. Sweeney. Dr. Perlberg suggested that this mat-

ter be taken up at the annual meeting next June in Atlantic City.

It was decided by the Executive Committee that the President should communicate with all the hospitals in Hudson County, asking each to name 2 professional men as possible members of a general committee to interest itself in the relationship of the medical profession to the hospitals—the committee to be appointed by the President after nominations are returned from the hospitals. It was felt that all medical matters in hospitals should be under the supervision of medical men and it was regularly moved, seconded and carried that this report be approved.

The Board of Censors reported favorably upon the following applicants: Nathan Plavin, 5407 Hudson Boulevard, North Bergen; Shafeek Nafash, 4246 Hudson Boulevard, Union City; Joseph A. Angelo, 1190 Paterson Plank Road, Secaucus; Alonzo W. Little, 120 Arlington Avenue, Jersey City; Philip Greenberg, 171 Van Nostrand Avenue, Jersey City.

Report of the Autopsy Committee, presented by Dr. Frank J. McLoughlin, showed that an agreement had been reached after a conference with the undertakers, and a set of rules adopted, which promise harmony and the securing of a much larger percentage of autopsies, provided members comply with the new rules and, in all respects, act coöperatively.

It was regularly voted that the President appoint a committee to continue looking after this matter, and Dr. McLoughlin was reappointed with power to select his own committee.

Dinner Committee, Dr. Louis A. Pyle, Chairman, reported that arrangements had been made for the Annual Dinner to be held on Saturday February 6, at 7:30 p. m., at the Hotel Pennsylvania, New York City. Excellent entertainment has been provided, with the promises of no speeches by medical men. He urged that all members promptly purchase their tickets.

Dr. P. E. Maras, Chairman of the Publicity Committee, reviewed the general situation as regards the practice of medicine and said: "The present situation resulted because of a failure to develop facilities for effective utilization of rapid progress made in medical science, and keen interest shown by the laity, public press and various magazines, in which the medical profession was criticized, suggest an imperative need for adequate adjustment.

The development of "new forces" such as water power, radio, etc., exploited by private interests, have become controlled by the government, contributing to the Nation's assets. Medical science, in the present revolutionized state, is a new force of even greater importance, since it is responsible for the Nation's health, which is, after all, the Nation's greatest asset. Facilities for the application of this force, within everybody's means, has been neglected, constituting a great economic problem for which the people are demanding a solution and upon which a decision is likely to be forced, regardless of the consequences and the injustice it will invoke upon individuals, and upon classes by those seeking to further their own selfish, ulterior purposes. This mistake was made in the various foreign countries where the Health Insurance has been set up.

We see in our own immediate community the development of a condition that is causing some alarm, namely, the disorganization of medicine.

We realize that a solution of this economic problem involving medicine, must be forth-coming soon; and that the foundation of this problem is the "Reorganization of Medicine and the Facilities for the Application of Medical Science". We physicians are the most intimately familiar with the application of medical science to the sick, and of the patients needs, the means of which is oftentimes procured through a sacrifice by both the patient and the physician. It is, therefore, our own duty to solve this economic problem for which we can no longer afford to shirk responsibility.

"Therefore, to study the conditions in our own immediate community, and to determine the most efficacious methods of administering to the needs in our community, we have recommended the creation of the Conference Committee on Hospital and Private Medical Practice."

The speaker of the evening was Dr. Alvan L. Barach, of New York City, and his subject was "Developments in the Use of Oxygen Therapy". Dr. Barach prefaced his talk with a historic review of the rôle played by oxygen in the maintenance of life, dating back to its discovery as the vital element in inspired air. He then spoke of the revival of interest which occurred during the war through the work of Haldane, who used oxygen in the treatment of gas bacillus infections of the lung. The development of use of oxygen rooms and tents in the past 10 years, followed. In commenting upon the various modes of oxygen therapy, use of the low-pressure tanks with tube and funnel, was condemned as not only very expensive, but equally useless. Industrial oxygen in high-pressure tanks is used. There are 3 desirable methods for oxygen administration. First, the use of the nasal catheter; a No. 10 French, with multiple fountain holes, attached to a high-pressure tank with reducing valves allowing a flow of 4 liters per minute, is found to give oxygen concentrations of 30% and up to 35%, without unduly irritating or drying out the respiratory mucous membrane. Second, the tent, which provides for drying, cooling and proper ventilation, and gives concentration of 45% to 60%, is still better. The small tents not properly designed may be positively harmful to the patient, as they make him uncomfortable and provide stuffy, over-heated and saturated air. Third, oxygen chambers. These are the best, although not so easily obtainable.

Dr. Barach then discussed the familiar effects of deficient oxygenation. The time for administration of oxygen begins with the first appearance of cyanosis. It must be understood that oxygen is not a specific treatment for pneumonia *per se*. What it does, and the only thing which can be claimed for it, is to prolong life and thus allow the patient added opportunity to meet and pass the crisis successfully. The treatment once begun is continued until the patient either dies or recovers. It must be remembered, however, that early treatment here, as at other times, is highly desirable, since waiting until there is a collapse due to lack of oxygen, is waiting too long, for despite intensive use of oxygen at that time, the patient will not be benefited.

The rôle of oxygen in heart disease was next considered. It may be said that there are 3 types in which it may be employed:

(1) Congestive heart failure. In this type, use of oxygen for 3 or 4 hours in concentrations of from 35 to 50% results in a clearing of the

cyanosis and dyspnea. Diuresis begins from the third to the fifth day and steadily increases. Good results are not obtained unless the treatment is continued vigorously, for 3 weeks treatment time is often needed. Amazing amounts of body fluids may be released by this means. It is evident that oxygen-lack plays a large rôle in oliguria of heart disease.

(2) Coronary thrombosis. This is even more important a condition for the use of oxygen, for here an otherwise well individual is often quickly stricken and dies; while giving 50% oxygen for 3 or 4 days only, may result in recovery for months or even years. Apparently, the outstanding danger during the attack is due to anoxemia of the heart muscles. The oxygen need is for a short period only; seldom beyond 3 or 4 days.

(3) Chronic cardiac pain. The use of oxygen in this condition is still in the experimental stage, and little of definite information is as yet available. Suffice to say that although of great possibilities, its use undoubtedly will continue to be of less importance here, than in the conditions noted above.

Other types of toxemia, including the alcoholic, were mentioned. Recovery from alcoholic intoxication follows the use of high oxygen concentration of about 50%. Cessation of oxygenation is followed by a recurrence of the intoxication. This suggests that a "veil" is thrown over the cells by alcoholism, which is removed temporarily through high oxygen concentrations. The same seems to be true in dementia precox, where oxygen and carbon dioxide seem, in many cases, to be followed by distinctly beneficial results. This is contrary to our knowledge of effectiveness of any other type of therapy in dementia precox. The use of filtered air and oxygen in asthmatic conditions, was mentioned. In conclusion, Dr. Barach mentioned the numerous other claims which have been made, and are being put forth, for oxygen therapy in other conditions. He begged that the use of oxygen be reserved for those conditions in which its use is known to be followed by distinct benefit, and leave the others until adequate scientific experiment and study has proved them efficaciously benefitted by oxygen.

The paper was discussed at some length by Drs. A. E. Jaffin, H. T. Von Deesten and B. T. D. Schwarz.

Bayonne Hospital Clinical Conference

Maurice Shapiro, M.D., Reporter

The regular Clinical Conference of Bayonne Hospital Staff was held Monday evening, January 4, at 9.30 p. m. with Dr. Pinkerton as chairman and Dr. Shapiro as Secretary.

Dr. Fifer reported for Dr. Pinkerton the following surgical cases.

Case 1. J. K., aged 52, white male, was admitted December 7, 1931, with statement that in April he struck the right knee against the corner of a table and sustained a longitudinal fracture of the patella. The limb was in a cast for 3 weeks, following the removal of which that foot and ankle began to swell and the swelling gradually extended upward, involving the entire leg to the hip. An elastic bandage, then applied, apparently intensified the condition. He was able to walk, with aid of cane, until 2 weeks before admission, when he was compelled to go to

bed. He had practically no pain at any time. He had, 6 yr. before, suffered a paralytic stroke, involving the left side for a period of 4 months.

Examination showed: Pupils responded to accommodation but not to light (Argyl-Robertson, positive.); lymph-nodes, not enlarged; oral hygiene very poor; heart and lungs, nothing noteworthy; right leg, uniformly enlarged; knee-joint double the normal size; marked bony overgrowth of the femur, causing considerable deformity of the knee-joint; marked, painless hypermobility; no local pain or sensitiveness; no evidence of local inflammation or venous congestion; no evidence of metastasis; hemiparesis, left side of body including the face; marked, left dorsal scoliosis; right knee-jerk sluggish and Babinsky, positive; ankle clonus, negative; left knee-jerk sluggish and Babinsky, positive; ankle clonus negative; all superficial reflexes abnormally lively.

An x-ray picture of the right lower thigh, knee-joint, and upper leg showed the femur periosteum markedly elevated and thickened, probably due to osteitis; patella had a longitudinal fracture on its outer side, with fragments in good position; femur dislocated inward; outer and superior border of the tibia, had a bony excrescence, probably due to hypertrophic arthritic changes; marked infiltration of soft tissues of the thigh and leg, probably due to lymphangitis.

A further examination of both shoulders, pelvis, hips and ankles showed no definite evidence of pathologic changes in bone structures, and examination of the skull showed insufficient evidence of pathologic change to be of diagnostic value.

The diagnosis was tabetic arthropathy (Charcot's disease).

Dr. Larkey presented the radiographs and gave his reasons for making the diagnosis of Charcot's joint, as follows: This condition is due to secondary changes in the nervous system, in the tertiary stage of syphilis, and is neuropathic in origin. The knees, hips, ankles and spine are most frequently involved; that is, the weight bearing joints. The most striking changes noted are the very extensive destruction of the joint. In the knee-joint, the condyle may be broken off, more or less disintegrated and pushed aside, so that the lower end of the femur may rest on the tibial articulation. The bones become softened and calcium salts compressed so that the bone in this area becomes dense and eburnated, and the joint much swollen. Some fluid is present, with a peri-articular swelling. The periosteum above the joint is infected, so that there is a marked periosteal reaction. One would expect great pain from this extensive destruction and, therefore, diffuse atrophy should be present, but the fact is that the bones are denser than normal. There are only 2 conditions in which this process is seen. When it exists in the upper extremities it is usually a syringomyelia; when in the lower extremities, it is usually a Charcot's joint.

Case 2. F. G., aged 21, white, male, was admitted November 24, 1931, stating that 4 weeks earlier he fell while at work and struck the left lumbar region. There was marked tenderness of that region but no swelling. He was coughing a great deal and his temperature was 102°. X-ray examination of his chest was ordered, and showed an infiltrative process of the productive type, at the base of both lungs, worse on the right side. The process was suggestive of a broncho-

pneumonia infiltration. Swelling in the left lumbar region appeared 8 days after admission, and gradually grew larger. Dr. Brooke believed this to be a traumatic hematoma, which had broken down, explaining the septic temperature. The swelling was incised and a large amount of pus evacuated. Temperature dropped to normal and a specimen of pus sent to the laboratory, brought forth the following interesting report: Numerous Medusa-head colonies of Gram-positive filaments. Cultures, aerobic and anaerobic, negative. Daily pus specimens cultured, show no growth. Daily examination of fresh pus, has frequently shown "sulphur" granules, which, on crushing, exhibited the typical ray fungus of actinomycosis. In order to ascertain whether this abscess had any connection with the kidney, methylene blue was given by mouth, but the dye never appeared in the wound.

Dr. Larkey presented the x-ray plates on this patient also, showing fine vacuoles in the lung, suggestive of a bronchopneumonic condition. Previous to operation, there was a large shadow in the left perinephritic area but, plates exposed after incision did not show this shadow.

Dr. Cares stated that he had made a study of the pus and had tried to culture for actinomycosis with both aerobic, and anaerobic media, but had not been successful. On crushing the "sulphur" granules, examination under the microscope revealed the ray fungus. He was doing some work with the material and will report progress at a later date.

In the discussion, it was brought out that this case had probably been one of actinomycotic bronchopneumonia, with an empyema that had broken into the perinephritic space and traveled thence to the exterior without causing any erosion of the ribs.

Case 3. B. B. M., aged 5 months, white male, was admitted December 23, 1931. Child became suddenly restless and crying, apparently in pain. Seen by Dr. Rosenstein, who noticed a small swelling about the right inguinal region, diagnosed a strangulated hernia, and advised immediate operation. An oval, firm, elastic cyst was found, attached to the cord, and containing a clear fluid. A few stitches were placed above the cord, to tighten the inguinal ring, the skin was then closed with interrupted silk worm, and the child made an uneventful recovery. Diagnosis was "an encysted hydrocele of the cord, probably in an unobliterated part of the funicular process, cut off from the peritoneum and vaginal process.

Case 4. C. C., aged 17, white, male, admitted November 17, 1931. While at work, he was caught in the revolving part of a machine, and the whole right arm was markedly swollen, more particularly in the elbow, probably due to a large hematoma. Distinct deformity of lower end of the humerus was evident. The pulse was not perceptible. Radiograph showed comminuted fracture of the lower end of the humerus, marked angulation of the fragments, and a fragment of bone interposed between the ends of the fracture.

Continuous, hot, wet applications were ordered, to reduce the swelling, and a straight, lateral splint, with traction was applied. After 2 weeks, the traction was removed, a padded lateral splint applied and the arm fastened to the body. Another radiograph showed the fragments to be in much improved position. At present, there is

evidence of union and callus formation, and his pulse appears to be almost normal.

In the discussion it was reported that Dr. Saul Samuels, who happened to be in the hospital, was asked to take a recording sphygmochronographic record, and it showed *no pulsations in the artery*. Following the operation, the pulse was easily and distinctly felt in the wrist.

Dr. Marshak reported for Dr. Deary, the following medical cases.

Case 1. F. P., aged 32, white female, admitted on reference by private physician, was brought here in deep coma. Immediate contact with the family physician, secured confirmation of the suspicion of a diabetic condition. Patient had never adhered to dietary precautions. She was a mild diabetic and insulin was never necessary. In the 4 or 5 days before admission, there was a gradual onset of coma; she began feeling warm, face flushed, perspired freely, weakened progressively and became dizzy, apathetic, irritable and emotional.

On the night of admission she received 70 units of insulin with 100 c.c. of 50% glucose. Also given oxygen inhalation for the extreme cyanotic condition. Next day, being still in coma, it was decided to administer large amounts of insulin and she received 250 units with enough glucose to cover it up. Catheterized specimens of urine were obtained every 2 hours and examined for sugar and acetone. At the same time, fluids were pushed to the utmost. She was given 5000 c.c. of glucose and saline by clysis and intravenous route, to restore body fluids. Insulin and fluids were continued 3 days. During the second day she began crying out, moaned quite a bit and tossed listlessly from one side of the bed to the other. Respirations were still labored and shallow. Heart beat very rapid and forceful. Mouth dry and coated. Cheeks sunken and eyes protruding. On the third day, she became rational; began taking food by mouth and voided larger amounts of urine. Soon, she sat up. Respirations changed from character of deep acidosis to the rapid, shallow jerky-type seen so often in pneumonia. Parenteral administration of fluids was discontinued and active treatment for pneumonia begun. Mustard plasters were applied to the right chest, she was given codeine for her cough, which became mucopurulent and blood tinged at that time. She was also placed on a maintenance diet of 1000 calories and 25 U. Insulin t.i.d. and 24 hours urines started. Four days after admission she developed an otitis media, right side. At that time, too, a vaginal smear was positive for gonococcus. Radiograph of chest suggested the presence of bronchopneumonia. Temperature was continually elevated, pulse about 120; respirations 30.

Acetone bodies gradually decreased, finally disappearing completely 3 weeks after admission. Sugar disappeared about the same time. At the end of a month, patient was still running a septic temperature, and examination revealed dullness to flatness, from apex to base of right lung, with râles all over that side. Breath sounds were barely audible at base. Condition suggested a pleural exudate and encapsulated fluid area in the upper lobe, but thoracocentesis failed to reveal any fluid. Physical signs in the chest still remain unchanged.

To complicate the picture, she had a bloody stool, and rectal examination revealed a firm, hard, fixed mass on the anterior surface of the rectum about half the size of a hen's egg.

MERCER COUNTY

A. Dunbar Hutchinson, M.D., Reporter

The Mercer County Medical Society met in the Stacy-Trent Hotel January 13, at 8.30 p. m., with President Wilbur presiding. Suspension of reading of the minutes, with introduction of the Guest of Honor, immediately followed the call to order by the president.

Dr. Thomas McCrae, Professor of Medicine, Jefferson Medical College, Philadelphia, addressed the society on the subject—"The Troubles of the Colon."

Dr. John F. Hagerty, President of the State Society, gave a very promising résumé of the future expectations of the several special committees appointed to carry on some of the work of the State Society.

Dr. J. Bennett Morrison, Secretary of the State Society, also spoke in a most entertaining manner on subjects relatively interesting to every New Jersey State Medical Society member.

Dr. Wm. R. Little, Chairman of our County's Post-Graduate Committee, reported the progress being made in arranging the course of lectures to begin March 15.

Dr. John A. Connelly, a member of this committee, reviewed the personnel of lecturers, with an outline of the subjects that each man will lecture upon, as tentatively selected by the committee.

Drs. F. A. McGuigan and H. J. L. Schroeder, were elected to Active Membership in the Society.

The applications of Drs. M. L. Poyas and Wm. V. Carroll, were read and referred to the Membership Committee.

The society went on record in support of the 2 motions passed at the Conference of County Society Secretaries and Reporters, held Nov. 5, 1931, relative to changes in the By-Laws of the State Society, regarding dues and Reporters' Membership in the House of Delegates.

The President appointed a Liaison Committee and a Maternal Welfare Committee to act in conjunction with the State Committees appointed by Dr. Hagerty.

MIDDLESEX COUNTY

Medical Section Rutgers Club

J. H. Rowland, M.D., Secretary

The regular monthly meeting of the Medical Section of the Rutgers Club was held on Friday evening, January 15, at the Hotel Klein, Dr. Johnson presiding, and 16 members present. There being no business to transact, the speaker of the evening was immediately introduced. Dr. Edward J. Donovan, of the N. Y. Babies' Hospital and Attending Surgeon of St. Luke's Hospital, gave a talk on "Common Surgical Conditions in Children", demonstrated with lantern slides.

Dr. Donovan stressed the difference of surgical conditions in children and adults. He emphasized particularly the fact that children do not stand operative procedures as well as adults, and are very susceptible to ill effects from loss of blood. He pointed out the necessity of a very careful history and the advantage of a thorough, pains-taking, physical examination under unusual circumstances in children. He pointed out that the more common surgical conditions, of the first year of life, are those of malformation,

and spent considerable time on surgical conditions of the abdomen. He mentioned the essential points of operation for empyema, closed method, and operations for diaphragmatic hernia.

The paper was very well presented, and free discussion followed, to the advantage and benefit of all.

The meeting adjourned spontaneously, and the members were entertained by Drs. Feher, C. T. Brown, Haywood and Smith.

MONMOUTH COUNTY

Harold A. Kazmann, M.D., Reporter

Dedication of New Hospital

The new Fitkin-Morgan Memorial Hospital was dedicated on December 29, 1931, at Asbury Park. It is a 150-beds general hospital, built of brick on, the style of Independence Hall in Philadelphia, and is the latest thing in modern hospital construction from every point of view. It fills a crying need in Monmouth County for more hospital beds.

The Surgical Staff consists of Drs. L. L. Leonard, O. K. Parry, of Asbury Park, and H. B. Slocum, of Long Branch; and the assistant surgeons are Drs. D. Featherston, MacKenzie and Gosling.

The Chiefs on the Medical Service are Drs. James F. Ackerman, W. K. Fairbanks and F. J. Altschul; and the assistant physicians are Drs. Edelson, Traverso and Von Oehsen.

The Obstetric Service is in charge of Drs. Joseph Ackerman and K. G. Brown.

On the Eye, Ear, Nose and Throat Service are Drs. James A. Fisher, John B. Makin and R. W. Baeseman.

Pediatricians include Drs. Chas. E. Prout and R. E. Watkins.

Genito-Urinary Surgeons are Drs. David M. P. Magee and C. Byron Blaisdell, assisted by Joseph C. Jordan.

The Orthopedic Surgeon is Dr. B. W. Moffat.

In the Pathologic Department are Drs. C. A. Pons and S. C. de Pons.

Dr. William G. Herrman is the Roentgenologist; Dr. Jos H. Bryan, Physiotherapist; Dr. T. E. Fenton, Anesthetist; Dr. Morris Grossman, Neurologist; and Dr. Roaul Peatrie, Neurologic Surgeon.

MORRIS COUNTY

M. A. Curry, M.D., Reporter

A special meeting of the Morris County Medical Society was held the evening of Thursday, January 21, in Recreation Hall, at the New Jersey State Hospital, Greystone Park. President Krauss called the meeting to order with 46 members and guests present.

The only routine business transacted was the unanimous election to membership in the society, of Dr. Conrad O. Ranger, of Greystone Park, and Dr. William H. Seward, of Madison.

The evening was given over to a paper, with slide illustrations, by Dr. Frederick T. vanBeuren, Attending Surgeon at the Presbyterian Hospital, Medical Center, New York City, whose topic was "Symptoms of Acute Intestinal Obstruction with Relation to other Acute Surgical Conditions of the Abdomen".

Dr. van Beuren stressed the value of early diagnosis and, in this great factor of success, the importance of coöperation of the family physician

with the surgeon, as it is the former who usually secures intervention of the surgeon, early or late, as the case may be, and he must, therefore, share in some measure, with the surgeon, responsibility for the outcome of the operative treatment; that this is certainly true in the case of intestinal obstruction, where the mortality percentage has been so clearly proved to depend upon the amount of time elapsing between onset of the trouble and its relief by operation. He cited the following opinions. More than 35 years ago, Sir Frederic Treves said: "The mortality of acute intestinal obstruction is 75%. It should be about 5%. The difference is due to delay." About 10-15 years ago, when the mortality of this condition was about 50%, John Finney, of Baltimore, wrote: "A poor operation early is better than a good operation late." Neither of these important messages seems to have impressed itself upon the mind of the family physician. The surgeons have been able to accomplish only about $\frac{1}{2}$ the mortality reduction that Sir Frederic Treves predicted, for the mortality now stands at about 40% in most general hospitals, and we badly need the wise co-operation of the family physician, if we are to justify our hopes of reducing the mortality to a figure acceptable as a fair mortality rate for so serious a condition. The mortality is, in fact, about 5% in cases relieved by operation within 24 hours of the onset, whereas, in a group of patients not operated upon for 72 or more hours, the mortality varies (at different hospitals) between 50% and 75%. Nothing can illustrate more strikingly than these figures the importance of early diagnosis and early surgical intervention. (The paper is promised for later publication in the *Journal*.)

Interesting discussion was aroused, and was participated in by Drs. Haven, Lathrope, Frost, McMahon, Coon, and President Krauss.

After closing the scientific chapter, refreshments were enjoyed, by invitation of Superintendent Curry, in the Cafeteria.

OCEAN COUNTY

Eugene G. Herbener, M.D., Reporter

The Ocean County Medical Society held a special meeting January 18, in the Paul Kimball Hospital, at 11 a. m., and adopted a resolution requesting the Treasurer, Dr. Frank Brouwer, to pay the State Medical Society dues from the Treasury of the County Society; there being a good sized balance on hand, and more than is needed for County Society current expenses.

The society also sent a congratulatory telegram to U. S. Senator, Dr. Royal S. Copeland, of New York, for introducing a bill into the Senate to remove all restriction for prescribing medicinal liquor for patients when the physician thinks it necessary.

PASSAIC COUNTY

Wayne W. Hall, M.D., Secretary

The regular meeting of the Passaic County Medical Society was held at the Health Center, Paterson, January 14, at 9 p. m. The minutes of the December meeting were approved as read. There were 97 members and guests present.

The applications for membership of Drs. Anthony M. Perneti and Maurice M. Chapnick were

presented to the society and ordered sent to the Board of Censors for investigation.

A letter from the Passaic County Dental Society was read, extending a cordial invitation to our society to attend a meeting of the society on Monday, February 15, at which time Dr. George Dorrance, of Philadelphia, will read a paper on "An Original Research on Cleft Palate and Diseases of the Temporomandibular Joint".

A communication was received from the Funeral Directors' Association, of Passaic, Bergen and Morris Counties, requesting that our society appoint a committee to confer with them on the subject of autopsies. Dr. Charles Mitchell moved that the Executive Council and the pathologists of the various hospitals compose this committee. This motion was carried.

The scientific program consisted of a "Symposium on Allergy". The first paper, covering "Allergy of the Respiratory Tract", was presented by Dr. Matthew Walzer, Director of the Allergy Clinic of the Brooklyn Jewish Hospital. The second paper, on "Allergy of the Gastro-Intestinal Tract", was presented by Dr. Albert F. Andresen, Professor of Gastro-Enterology, Long Island College Hospital, Brooklyn. The discussion of these papers was most interesting and instructive. It was carried on by Drs. Joseph Bergen, Charles Murn, Charles Mitchell, Ralph Vreeland, William Spiekers, Thomas Dingman, Israel Feigenoff, A. Schulman and S. W. Johnson.

We were honored by having with us Dr. J. Bennett Morrison, Secretary of the State Medical Society, and Dr. Henry O. Reik, Editor of our State Journal. Dr. Morrison spoke briefly of the work being carried on by the State Society at present and that contemplated for the future.

UNION COUNTY

Russell A. Shirrefs, M.D., Reporter

Six members of the Union County Medical Society took part in a symposium on middle ear disease, at a meeting at the Elizabeth General Hospital on January 13. Dr. H. V. Hubbard presided. Dr. Henry O. Reik, of Atlantic City, Editor of the State Society's Medical Journal and Executive Secretary of the State Medical Society, told of the work of that organization.

The symposium consisted of talks by Dr. Charles H. Sehliechter, of Elizabeth, who discussed the diagnosis of middle ear disease; Dr. William E. Boozan, also of Elizabeth, nose and throat infections in their relation to middle ear disease; Dr. A. M. Paulson, mastoiditis complicating middle ear disease; Dr. P. J. Childers, sinus thrombosis producing complications; Dr. Cleveland Davis, of Summit, meningitis complicating middle ear disease, and Dr. Thomas H. Fitch, intracranial complications. Drs. Paulson, Childers and Fitch are from Plainfield.

A general discussion of the subject was held after the symposium, and was opened by Dr. George S. Laird, of Westfield.

Newly elected members of the society were: Drs. Edward J. Ward, Francis Merlo and Joseph Weisman, of Elizabeth; Richard C. Peters and Hugh M. Babbitt, of Plainfield; Elsie McClintock and Henry J. Kinzelman, of Hillside, and Dr. John Rathbone, of Summit.

Refreshments and a social hour followed the meeting.

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TREATMENT OF ECZEMA IN INFANTS BY A MILK-FREE DIET*

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and
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Eczema is the most common skin disease in infants, for which medical aid is sought. The dearth of facts concerning its etiology has made the treatment of infantile eczema a most difficult problem. In the treatment of any disease, the primary method of attack is to remove the cause, provided it is known.

The causes of infantile eczema may be summarized as local, general, and constitutional. In infancy, there exist numerous predisposing factors, such as, tender skin, abundant gland secretions, frequency of digestive disturbances, and the so-called exudative diathesis, of which eczema is one of the chief manifestations. Infantile eczema occurs in certain families more than in others, and frequently is accompanied or followed by asthma. It frequently occurs in breast-fed, healthy, apparently happy babies. Infants with eczema frequently show some sensitization to animal or vegetable proteins. The protein, carbohydrates, mineral salts and, most commonly, the fat constituents, of the diet have all been blamed, individually or collectively, for the skin eruption. Over-feeding, under-feeding, dentition, and numerous digestive disturbances have been advanced as causes of eczema.

In accordance with other observers, we have noted that the majority of infants with eczema are not breast-fed but receive modified cow's milk formulas and that the eczema usually appears after the beginning of a diet of cow's milk. This may be accounted for partially by the fact that most mothers do not nurse their babies entirely now-a-days but either add cow's milk early as a complementary feeding or wean their babies early and resort to cow's milk feedings entirely.

C. J. White, following the work of Towle and Talbot on the examination of feces in infantile eczema, concluded that when fats and starches were not present, the sensitization factor was either milk or egg. Blackfan reported that in 27 children with eczema, by intracutaneous and cutaneous tests, he found 22 children sensitive to one or more proteins; most of them to cow's milk; only 2 to breast milk. Hazen observed that the most frequent causes of infantile eczema were milk and egg sensitization. Ormsby, also, claims that the most frequent allergens in infants are cow's milk and eggs.

O'Keefe, from a study of protein sensitization in eczema of infants and older children, concluded that faulty digestion of proteins, with consequent absorption in an undigested state, was the most common feature of these cases of eczema. He performed cutaneous tests on the mothers of nursing babies, removed the sensitive proteins from the mothers' diet, and reported improvement in 17 of 41 babies observed. Shannon, also, reported a series of cases in which the eczema in breast-fed babies showed improvement upon elimination of certain food proteins in the mothers' diet.

*(Read at the 165th Annual Meeting of the Medical Society of New Jersey, Section on Pediatrics, Asbury Park, June 5, 1931.)

W. T. Vaughan, in a published article entitled "Allergic Eczema", indicates that the pendulum is swinging more to the allergic causes of eczema and predicts that as the subject of clinical allergy is further investigated and applied, increasing percentages of cases of eczema will be found unequivocally associated with allergy. Peshkin, in a comparative study, states that eczema is usually based upon food sensitization, while asthma more frequently follows sensitization to inhalants. Ramirez found that of 78 cases of eczema, 38 yielded skin reactions to one or more proteins. Talbot observed 14 reactions to egg white and other food proteins in 16 eczema cases. Schloss found 77.4% positive skin reactions in eczematous children under 16 months of age and 41.6% positive in children over 16 months.

At the Children's Clinic, of the Newark Department of Health, we were early impressed with the fact that most of the children brought to the clinic suffering with eczema were receiving cow's milk as a substitute for breast feedings. Pusey and others were emphatic in stating that most cases of infantile eczema occurred in babies fed upon cow's milk dilutions. In a few of these cases, juggling of the milk, sugar or excess fats brought some relief, but many infants did not improve with this treatment or even with the use of dried milk. Under-feeding the infant often brought temporary relief, but the mother's anxiety at the baby's not gaining quickly enough terminated this line of treatment.

With the thought before us that most of our infants with eczema were being fed cow's milk, our only treatment was to eliminate milk from the dietary, to substitute some other food for milk and, at the same time, to sustain the babies' gaining and good health.

About this time, Hill and Stewart published a report on the use of a soy bean preparation for feeding infants with a milk idiosyncrasy. They maintained 40 infants on this feeding for a sufficient length of time to conclude that the soy bean preparation was an efficient and practical substitute for cow's milk, when it is not desirable to use the latter. They stated also that this food might be very valuable as

a temporary diet for babies with severe eczema.

Robinson reported the use of a milk-free diet in 8 infants over 6 months of age. He substituted a diet of lamb and beef broths, cereals, vegetable purees, potatoes, macaroni, spaghetti, soy bean flour, wheat bread, coddled white of egg with the use of shredded meats, such as beef, lamb or chicken, after 8 months of age. He supplied vitamins with tomato juice, spinach puree, and cod-liver oil. He concluded that constantly good results were obtained in the majority of his cases by the milk-free replacement diet, but he found it often necessary to hospitalize some patients whose mothers did not feel competent to enforce the diet.

Since most of our infants appeared to be under 8 months of age, we decided to investigate the use of a milk-free diet with substitution of the soy bean preparation for the cow's milk formulas.

The use of the soy bean, as a food, appears in the Chinese Materia Medica of Shen Nung in the year 2838 B. C. In China, the soy bean has been used as an infant food for centuries. Horvath reports Buddhist Monks, consecrated at birth to the priesthood, who were carried through the entire period of childhood on the soy bean curd. Tso reported soy bean flour as the only source of protein to an infant for the entire period from 6 weeks to 8 months of age, during which time the infant thrived, had good stools, took the feedings well, but developed mild rickets.

In this country, Ruhrah originally recommended that soy bean flour be used as a gruel in the treatment of infantile diarrhea. He also recommended its use as a diluent for cow's milk formulas, particularly to make up the low protein content of diluted cow's milk. Daniels and Nichols have stated that the soy bean is one of the most valuable of the leguminous seeds. Other investigators have suggested that soy bean flour could be used as the sole source of the infant's diet when supplemented by vitamin-bearing foods, such as cod-liver oil and orange juice.

From our clinic, we selected infants with severe eczema who were being fed cow's milk dilutions. We picked the most severe cases,

explained our purpose to the mothers, ordered them to stop all local applications and to follow explicitly the diet, as it was explained to them. We took for our experiment only those patients in whom we obtained a positive intracutaneous test to cow's milk. The test consisted in a $\frac{1}{4}$ in. scratch of the skin of the fore-arm, the application of 0.1 sodium hydroxide, followed by application of the protein. We considered as positive reactions those patients on whom the red wheal appeared within 5 minutes and remained for at least $\frac{1}{2}$ hour. We chose this standard as best answering the requirements of a positive protein sensitization test, since we realized that skin testing is even to this day a subject of controversy.

We eliminated from our series those babies in whom we did not obtain a positive skin test to cow's milk, breast-fed infants, and all infants over 9 months of age. In order to eliminate excessive feeding as a cause of the eczema, the formula which the baby was taking when first seen, was reduced to maintenance quota of $1\frac{1}{2}$ oz. milk per pound body weight, with 1 to $1\frac{1}{2}$ oz. sugar and the baby observed for a period of 2 to 3 weeks on this formula. During this time, the babies were observed as to any changes in the skin, weight gains; and any progress in the children's condition was noted. After this period of observation, when no improvement in the skin eruption was noted, the infants were put on a milk-free diet, the soy bean preparation named *Sobee* being used, and the mothers were thoroughly instructed as to the preparation of the formula and ordered to report weekly for observation.

It is upon this series of 40 infants with severe eczema, fed on a milk-free diet, that we are basing this report. We observed 40 infants, varying in age from 1 month to 8 months, 14 under 6 months, 26 between 6 and 8 months, 22 males and 18 females, over a period of 4 to 9 months. Through the co-operation of our child hygiene nurses, we were able to keep these cases under close observation and bring the babies in for inspection whenever we deemed it necessary.

All the babies except 2 took the new feeding readily. In these 2 cases, it was found necessary to starve the babies for from 12 to 20

hours, before they were hungry enough to take the feeding. The soy bean preparation we used consists of a light brown flour of moderately fine consistency, inoffensive in taste and smell, mixes well with water, and passes through a nipple easily. We increased the total caloric content of the feedings by the addition of cane sugar in estimated quantities. In beginning the soy bean feeding, we started with about 2-3 strength and within 1 week gave a full strength mixture with added cane sugar. It was our experience that the infants took the soy bean feedings more readily when cane sugar was added than when other carbohydrates were tried.

We did not experience any disturbance in the stools of the infants. The stools, while on this feeding, averaged from 2 to 4 daily, were well-formed, more solid than loose, with no foul odor and no digestive disturbances occurred.

After the formulas were increased to full strength and the caloric content raised by added carbohydrate, the babies made good substantial gains for their respective ages. Cod-liver oil and orange juice were added in all cases to supply the necessary vitamins.

Analyzing the results obtained in infantile eczema with any form of therapy, we realize fully that it is such an evanescent disease that very often the time element must be considered. Very often the eczema will disappear spontaneously, burning itself out, regardless of the treatment instituted, the time involved being a very important factor. It is our opinion that one should be very conservative in judging these patients as cured unless observed over a long period of time.

Of the 40 infants under our observation, we feel that 38 showed definite improvement, and only 2 infants showed very little, if any, improvement. Among the 38 infants whom we term "improved", there has not been any recurrence of the eczematous rash over periods ranging from 4 to 9 months, during which time they were under constant observation. In all cases judged improved, there was a decided decrease in extent of the rash, in the itching, restlessness, and irritability of the infant in from 1 to 2 weeks' time from the

change to the soy bean feeding. The mothers, particularly, were most enthusiastic over the change in the skin, the roughened skins becoming smooth, the oozy, wet, scaly, pustular lesions rapidly drying and disappearing. In 7 of the 38 babies, the rash did not disappear until 2 months had passed from the date of beginning the soy bean formula. The first signs of improvement noted by the mothers were that the infants were "not scratching as much", "resting and eating better", "skin seeming dry and clearer", "seeming almost like a different baby". As the infants were followed, cereals, vegetable purees, stewed fruits were added to the diet with no recurrence of the eczematous condition.

As to the 2 infants in whom very little improvement of the eczema occurred, we can offer only this possible reasoning, that cow's milk, alone, was not the offending factor.

We offer the following cases as typical of the group of 38 babies termed improved:

(1) *A. L.* First seen at 4 months of age. Weight 14 lb. 2 oz. Bottle-fed formula: 30 oz. Grade A milk, 12 oz. boiled water, 6 tablespoonfuls Dextri Maltose No. 3. Had severe, oozing, vesicular, eczematous rash over face, ears and arms, with numerous very itchy excoriations. Skin test to milk protein, positive. Formula reduced to 21 oz. milk, 15 oz. boiled water, 4 tablespoonfuls Dextri Maltose No. 3. giving 6 bottles of 6 oz. each, every 4 hours. O. J. eliminated for period. Returned at 1 and 2 weeks' intervals; no improvement in skin condition, weight stationary. Put on 2/3 soy bean formula in place of milk. Returned 1 week later, with weight 14 lb. 2 oz. Mother reported: "Skin not so itchy; seemed much drier; stools good, 1 or 2 times daily; seemed hungry." Formula increased to full strength with sufficient carbohydrates added, and 1 week later, weight 14 lb. 10 oz.; rash dried entirely; no itching; stools good; taking new feeding well. Orange juice and cod-liver oil added. Two months later, still on Sobee; weight 17 lb.; no digestive disturbances; no rash present; skin smooth and dry; mother had added cereals. At 8 months of age, still on soy bean full strength; weight 19 lb.; no recurrence of rash; developing normally; stools good; now getting vegetable broths. At 10 months of

age, weight 20 lb.; no recurrence of rash; on diet of soy bean mixture, cereals, vegetables, vegetable broths, stewed fruits, orange juice, and cod-liver oil.

(2) *W. B.* Aged 5 months, when first seen; weight 14 lb. 10 oz.; dry, rough, eczematous rash over entire face with itching and excoriations over entire body, of 1 month's duration; continually crying, particularly when feet were touched. Gums were clear, urine negative for red cells. Had been nursed 3 months, then bottle fed with orange juice and cod-liver oil, since 2 months of age. Present formula: 40 oz. certified milk, 20 oz. water, 2 tablespoonfuls cereal, 4 tablespoonfuls milk sugar, boiled 5 minutes; giving 7 bottles of 8 oz. each. Skin test to milk markedly positive in 5 minutes. Formula reduced to 21 oz. Grade A milk, 15 oz. boiled water, 3 tablespoonfuls milk sugar; giving 6 bottles, 6 oz. each, every 4 hours. Orange juice eliminated temporarily. Reported at 1 and 2 weeks' intervals, with no improvement in skin, and "baby seems very hungry and cries continually". Infant was put on soy bean mixture, 2/3 strength. Returned in 1 week, with weight 14 lb. 9 oz. Baby played better; did not scratch as much; but seemed very hungry. Formula was increased in strength and volume. Returned 1 week later: Weight 15 lb.; stools 3 to 4 times daily; easy stools, good consistency; itching stopped; face and ears almost clear; not crying. Seen at 7 months: On soy bean mixture with cereals, orange juice and cod-liver oil; weight 17 lb.; skin clear entirely, although baby scratches body when unclothed. At 9 months: Weight 19 lb. 6 oz.; still on same formula with cereals, vegetables, beef juice, orange juice, cod-liver oil. At 1 year: Skin clear; no recurrence of rash on face or body in past 7 months. Baby's development excellent, weight 20 lb. 4 oz.; stools good quality and not frequent.

(3) *L. G.* Seen at 4 months of age, weighing 14 lb. Baby represented one of the worst cases of eczema seen at our clinic. He had a severe papulovesicular eczema over entire face, ears and neck; with visible and palpable, enlarged, cervical and posterior auricular glands; eyes puffed and almost entirely closed. Had been breast-fed for 2 months; then put on bottle of half milk and half water. Rash ap-

Name	Age	Duration of Eczema	Condition of Skin When First Seen	Feeding When First Seen	Skin Test to Cow's Milk	Skin Reaction to Maintenance Formula	Skin Reaction to Soy Bean Formula	Progress to Date
A. L.	4 mo.	2 mo.	Oozing, vesicular rash over face, ears, arms—very itchy.	W.M.—30 oz. B.W.—12 oz. D.M. No. 3—6 T 7 x 6 oz. O.J.—C.L.O.	Positive	No improvement over 2 weeks' observation.	1st wk.—"Not so itchy—seems drier." 2nd wk.—Rash dried entirely—no itching.	Observed for 6 mo. No recurrence of rash. Good gain in weight. Stools good. Cereals, vegetable puree, stewed fruit, O.J., C.L.O. added.
W. B.	5 mo.	1 mo.	Dry, rough rash over face with itching and excoriations of entire body. Continuous crying.	Certified M—40 oz. B.W.—20 oz. Cereal—2 T. Milk sugar—4 T. 7 x 8 oz.	Positive	No improvement over 2 wk. Baby crying, hungry.	1st wk.—Itching gone, crying stopped. 2nd wk.—Gained weight, no crying, face and ears almost clear. 3rd wk.—Skin clear.	Observed for 7 mo. Development excellent. Wt. 20 lb. 4 oz. Stools good. No recurrence of skin rash. Other foods added.
L. J.	4 mo.	2 mo.	Severe papulovesicular rash over face, ears, neck. Eyes puffy. Palp. glands.	$\frac{1}{2}$ milk $\frac{1}{2}$ water as desired.	Positive	No improvement 2 wk.	1st wk.—Gained 8 oz., rash dry—not so itchy. Eyes fully opened. Adentitis not so marked. 2nd wk.—rash entirely disappeared. Glands still palp.	Observed for 8 mo. No recurrences of rash. Skin entirely clear. Glands disappeared. Wt. 22 lb. Other foods added. Stools good.
W. B.	8 mo.	4 mo.	Dry and wet. Crusty lesions over face, cheeks, chin, forehead, legs.	Certified milk—32 oz. B.W.—10 oz. Cereal—2 T. Milk sugar—6 T. 7 x 6 oz.	Positive	No improvement over 2 wk. interval.	No new lesions in 1st 2 wk. under observation. Itching less intense after 1 mo. Rash became dry and disappeared after 2 mo.	Observed for 9 mo. No recurrence of rash. Skin entirely clear. Gained well in wt. Teethed—walked—eating all foods—gradually desensitized—now on whole cow's milk, 1 qt. daily.
M. L.	4 mo.	3 wk.	Dry and wet. Rash over face, scalp, ears, neck. Wt. 10 lb. 4 oz.	W.M.—20 oz. B.W.—8 oz. P.S.—3 T. 7 x 4 oz.	Positive 5 min.	No improvement in 2 wk.	1st wk. Rash not so itchy. 2nd wk.—no decrease in lesions. 1 mo.—rash drier—no decrease—no new lesions. 2 mo.—rash gone entirely.	Observed 7 mo. Gain in wt. good. Stools good. No rickets. Still on So-bee, taking formula well. No recurrence after rash gone. Getting cereals, veg., desserts. Mother very pleased with feeding.
A. L.	4 mo.	3 wk.	Dry and wet rash over face, scalp, arms, body, legs. Wt. 14 lb. 2 oz.	W.M.—23 oz. B.W.—18 oz. D. M. No. 1—6 T. 7 x $6\frac{1}{2}$ oz. Cereals, veg., O. J., C.L.C.	Positive 5 min.	No improvement 3 wk. on milk alone.	1st wk.—Rash seems drying up. 2nd wk.—Rash dried entirely. 3rd wk.—rash gone entirely.	Observed 4 mo. No recurrence. Mother put child back on whole milk gradually. Getting other foods. Stools good. No rickets. Teethed normally.

Name	Age	Duration of Eczema	Condition of Skin When First Seen	Feeding When First Seen	Skin Test to Cow's Milk	Skin Reaction to Maintenance Formula	Skin Reaction to Soy Bean Formula	Progress to Date
A. F.	3 mo.	2 mo.	Dry and wet rash over face, ears, scalp, neck, arms, leg—itchy. Wt. 16 lb.	½ milk, ½ water, as desired.	Positive 5 min.	No improvement 2 wk.	1st wk.—No change. 2nd wk.—No change. 1 mo.—Rash dry. 2 mo.—Gone entirely.	Observed for 7 mo. No recurrence of rash. Stools good. Took formula well. Now on ½ Sobee feeding, ½ milk dilution. No rickets. Wt. 18 lb.
G. D.	5 mo.	3 mo.	Dry and wet rash over both cheeks, behind ears.	Certified milk—32 oz. B.W.—10 oz. Cereal 2 T. M.S.—4 T. 7 x 6 oz. Cereals, O.J., C.L.O.	Positive skin test 5 min.	No improvement 3 wk.	1st wk.—Rash dry, no itching, not so extensive. 2nd wk.—Almost gone entirely.	Observed 4 mo. No recurrence. Stools good. Still on Sobee. Wt. gain good. Taking cereals, veg. puree, stewed fruit.
M. G.	7 mo.	5 mo.	Dry rash over scalp, face, chest. Excoriations over arms and legs.	W.M. as desired. Cereals, veg., soup, egg.	Positive 5 min.	No improvement 3 wk. without egg.	1st wk.—Less extensive, baby not scratching. 2nd wk.—Gone entirely.	Observed 6 mo. No recurrence. Stools good, 5 x daily, soft-formed. Wt. 1 yr.—20 lb. Getting other foods with egg. No recurrence. Was gradually desensitized to cow's milk.
R. M.	6 mo.	4 mo. Nursed 2 mo.	Dry and wet, scaly, raw areas over face and arms.	Certified milk as desired. 4-5 x 8 oz. Cereals, veg. soup, O.J. Wt. 18 lb.	Positive 5 min.	No improvement 3 wk.	1st wk.—Dry, not so itchy, no new lesions. 2nd wk.—Rash disappearing. 3rd wk.—No itching, rash gone.	Observed 4 mo. Still on Sobee. No recurrence. Wt. gain good. Stools good. Taking other foods. Wt. 10 mo.—21 lb.
M. C.	6 mo.	4 mo.	Wet, pustular, oozing rash over face, arms, legs.	W.M.—32 oz. B.W.—10 oz. P.S.—3 T. 6 x 7 oz. O.J., cereals.	Positive 5 min.	No improvement in 2 wk.	stopped, rash dry. 1st wk.—Itching 2nd wk.—No rash face arms, legs. 3rd wk.—Skin clear.	Observation 6 mo. No recurrence. Stools good. No rickets. Wt. 10 mo. 19 lb. Cereals, veg. soup added. Gradually put on cow's milk.
L. G.	8 mo.	6 mo. Comes and goes	Dry, rough, scaly rash over scalp, face, ears, legs. Wt. 14 lb. 2 oz. Rickets.	Certified milk undiluted—4 x 8 oz. Cereals, veg. soup, desserts. No C.L.O.	Positive 5 min.	No improvement in 2 wk. on milk alone.	1st wk.—Face clearing up. Does not scratch as much. 2nd wk.—Rash gone entirely.	Observed 10 mo. No recurrence. Kept on Sobee until 1 yr. of age, then gradually desensitized to milk. Stools good. C.L.O. given T 10. Rachitic signs gone except for bourny. Wt. 18 mo.—25 lb.

Name	Age	Duration of Eczema	Condition of Skin When First Seen	Feeding When First Seen	Skin Test to Cow's Milk	Skin Reaction to Maintenance Formula	Skin Reaction to Soy Bean Formula	Progress to Date
B. H.	2 mo.	From birth on—1st wk. always on bottle.	Raw, angry, wet rash over both cheeks, ears. Dry rash over legs.	W.M.—20 oz. B.W.—10 oz. D.M.—6 T 6 x 5 oz. O.J.—C.L.O.	Positive 5 min.	No improvement in 3 wk. on milk alone.	1st wk.—No improvement. 3rd wk.—Rash dry. 6th wk.—Rash less extensive—dry. 8th wk.—Gone entirely.	Observed 7 mo. No recurrence. Still on Sobee. Stools good. Getting cereals, veg, puree, O.J. No rickets. Wt. 18 lb., 6 oz.
W. S.	7 mo.	4 mo.	Dry and wet, scaly, pustular rash of face, forehead, scalp. Wt. 15 lb. 3 oz.	W.M.—4 x 8 oz. Cereals, veg. soup, O.J.	Positive 5 min.	No improvement over 2 wk.	1st wk.—Rash dry, Pustules gone. 2nd wk.—Skin smooth, dry; rash gone.	Observed 5 mo. No recurrence. Still on Sobee. Getting other foods—cereals, veg. puree, fruit, O.J. Stools good. "Almost like a different child."
M. T.	8 mo.	6 mo.	Dry, itchy scalp. Red rash over both cheeks, legs, arms.	W.M.—32 oz. B.W.—8 oz. D.M.—6 T. 5 x 8 oz. Cereals, veg. soup, O.J., C.L.O.	Positive 5 min.	No improvement 3 wk.	1st wk.—Itching less marked. Rests better. 2nd wk.—Rash gone from face and arms. 3rd wk.—No rash.	Observed 9 mo. No recurrence. Gradually sensitized. Now on cow's milk. Stools good. Gained well. Wt. 1 yr.—21 lb.
T. C.	1 mo.	Since birth. Always cow's milk	Rough, dry, scaly, itchy rash over face, behind both ears, forearms.	W.M.—12 oz. B.W.—9 oz. P.S.—2 T 7 x 3 oz.	Positive 5 min.	No improvement 2 wk.	1st wk.—Itching stopped. Child rests better. 2nd wk.—Rash gone entirely.	Observed 9 1/2 mo. Wt. 20 lb. No recurrence. Stools good. Cereals, veg. B.J., O.J., C.L.O. No rickets. Still on Sobee.
K. S.	6 mo.	3 mo. Since put on bottle.	Entire face covered with dry, scaly, itchy vesicles and scabies.	W.M.—28 oz. B.W.—14 oz. D.M.—6 T. 6 x 7 oz. Cereals B.I.D. Veg. soup, O.J.	Positive 5 min.	No improvement 2 wk.	1st wk.—Itching less intense. 2nd wk.—Rash less red, less pronounced. 3rd wk.—Rash gone entirely.	Observed 7 mo. No recurrence. Rash never returned. Stools good. On Sobee until 1 yr., then cow's milk gradually added. Cereals, veg. soup, fruit. No rickets. Wt. 1 yr.—20 lb 8 oz.
J. S.	6 mo.	5 mo.	Dry and wet rash over face, legs, arms, scalp. Wt. 14 lb.	nap E.M.—15 oz. B.W.—15 oz. K.S.—3 T 6 x 5 oz. Cereals, veg., O.J.	Positive 5 min.	No improvement 2 wk.	1st wk.—Itching less intense. 2nd wk.—Skin clear.	Observation—4 mo. Still on Sobee. No recurrence of rash. Stools good. Gained well in wt. Wt. 10 mo.—19 lb. Cereals, veg. soup.

Name	Age	Duration of Eczema	Condition of Skin When First Seen	Feeding When First Seen	Skin Test to Cow's Milk	Skin Reaction to Maintenance Formula	Skin Reaction to Soy Bean Formula	Progress to Date
M. G.	7 mo.	6 mo.	Red, dry, scaly, itchy, bleeding rash over entire body.	W.M.—32 oz. B.W.—17 oz. D.M.—8 T. 7 x 7 oz. Cereals, veg., O.J.	Positive 5 min.	No improvement 2 wk.	1st wk.—Bleeding and itching gone. Skin dry. 2nd wk.—Skin smooth.	Observation 8 mo. No recurrence rash. Stools good. Gained in wt. Took formula well. Was gradually desensitized to cow's milk. Now on cow's milk and solid foods. No recurrence.
E. R.	6 mo.	4 mo.	Wet and dry, vesicular rash over cheeks, behind ears, legs, arms. Wt. 15 lb.	W.M.—30 oz. B.W.—12 oz. D.M.—6 T. 7 x 6 oz. Cereals, O.J.	Positive 5 min.	No improvement in 2 wk.	1st wk.—Skin dry, less itchy. 2nd wk.—Clear. 1 mo.—Eczema broke out again. 3 mo.—No improvement.	Observation 4 mo. Rash cleared up within 1 mo. While child was still on Sobee alone, rash returned as severe as at start. No improvement noted. After 1 more month's trial, Sobee discontinued. Rash no better.
M. L.	9 mo.	6 mo.	Markedly excoriated body. Dry rash over cheeks, arms, legs.	Certified milk—32 oz. B.W.—10 oz. M.S.—4 T. 6 x 7 oz. Cereals, veg. soup, O.J.	Positive 5 min.	No improvement in 3 wk.	1st wk.—Skin dry, itching less intense. 1 mo.—Skin clear. 2 mo.—Rash broke out suddenly while on Sobee only. No improvement.	Observation 4 mo. Rash improved and disappeared within first 2 wk. Child was on Sobee. No other additions (?) when rash broke out suddenly as severe as at start. Further observation did not show any improvement.
R. S.	7 mo.	5 mo.	Dry and wet raw areas over face, scalp, legs, arms.	W.M.—32 oz. B.W.—8 oz. P.S.—3 T. 5 x 7 oz. Cereals, veg., O.J.	Positive 5 min.	No improvement 2 wk.	1st wk.—Skin dry, not so itchy. Child rests better. 2nd wk.—Rash almost gone. 3rd wk.—No rash.	Observed 5 mo. No recurrence of rash. Stools good. Wt. 1 yr.—20 lb. 4 oz. Taking cereals, veg., O.J., fruit, still on Sobee.
M. D.	6 mo.	5 mo.	Wet, scaly, oozy, vesicular rash over arms, legs, face, ears, eye-brows.	Condensed milk—ZIV to 6 oz.—6 x. Cereals, veg.	Positive 5 min.	No improvement 3 wk. on reduced cow's milk formula.	1st wk.—Rash, dry, no itching. 2nd wk.—Rash almost entirely gone. 3rd wk.—Skin smooth. No rash.	Observation 9 mo. No recurrence of rash. Stools good. Solid foods added. Gained well in wt. 1 yr.—22 lb. Was gradually taken off Sobee and put on cow's milk.
I. K.	3 mo.	4 mo. Nursed 4 mo.	Dry and wet rash over face, forehead.	W.M.—4 x 8 oz. Cereals, veg. soup, egg, O.J.	Positive 5 min.	No improvement 2-3 wk.	1st wk.—Rash dry, disappeared from face. Child resting better. 2nd wk.—Rash entirely gone.	Observation 4 mo. No recurrence rash. Egg added back to diet with no recurrence. Stools good. Good gain wt.

Name	Age	Duration of Eczema	Condition of Skin When First Seen	Feeding When First Seen	Skin Test to Cow's Milk	Skin Reaction to Maintenance Formula	Skin Reaction to Soy Bean Formula	Progress to Date
J. S.	8 mo.	2 mo. Nursed 6 mo.	Dry and wet rash on arms, legs, face.	W.M.—32 oz. B.W.—8 oz. K.S.—3 T. 5 x 8 oz. Cereals, veg. soup, egg.	Positive in 5 min.	No improvement 2-3 wk.	1st wk.—Rash disappeared entirely from entire body. Child like different baby.	Observed 6 mo. No recurrence. Kept on Sobee until 1 yr. Stools good. Gradually desensitized to cow's milk. Good gain wt. 1 yr.—22 lb. 4 oz.
R. R.	3 mo.	2 mo.	Oozing, vesicular, crusty rash over face, ears, cheeks. Wt. 7 lb. 12 oz.	Cow's milk 21 oz. B.W. 21 oz. Plain sugar 3 T. 7 x 6 oz.	Positive in 5 min.	No improvement over 3 wk. interval.	1st wk.—No improvement. 2nd wk.—Rash dryer. 3rd wk.—No more improvement. 2 mo.—Rash entirely dry, almost gone.	Observed for 10 mo. Gained wt. Rash did not recur. Stools good. Other foods added and gained well. Wt. 6 mo.—12 lb. Wt. 1 yr.—19 lb. Skin clear, dry, smooth. No rickets. Now on whole milk.
F. G.	9 mo.	5 mo.	Weeping and dry crust over face, legs, chest.	W.M.—32 oz. 4 x 8 oz. Cereals, veg., desserts.	Positive in 5 min.	No improvement over 3 wk. interval. All solid foods eliminated.	1st wk.—Skin dry, "not so itchy", 2nd wk.—Rash only on legs. 3rd wk.—Rash gone entirely.	Observed for 4 mo. No recurrence rash. Child gaining in wt. Still on Sobee. Other foods added. Stools good.
G. W.	6 mo.	Since birth. Was put on formula following breast from birth on.	Dry, red, scaly rash over face, ears, legs. Very itchy. Wt. 21 lb.	Cow's milk—32 oz. B.W. 17 oz. Cereal—2 T. Milk sugar 4 T. 7 x 7 oz. Cereals twice, O.J., C.L.C.	Positive in 5 min.	No improvement over 2 wk. interval on milk alone.	1st wk.—Rash dry. 2nd wk.—Rash entirely gone, no itching.	Observed for 7 mo. Gained slowly in wt. No recurrence of rash. Gradually desensitized. Now on cow's milk. Other foods. Stools good Wt. 1 yr.—24 lb.
W. M.	1 mo.	Since birth has received cow's milk. Since birth no breast.	Wet and dry, scaly, vesicular, crusty, eruption over face, ears, legs. Wt. 8 lb.	Cow's milk—16 oz. B.W.—12 oz. P.S.—3 T. 7 x 4 oz.	Positive in 5 min.	No improvement over 2 wk. interval.	1st wk.—No improvement. 1st mo.—Old rash not improved, no new rash. 6 wk.—Rash drier. 2 mo.—Rash dry, almost gone entirely.	Observed for 6 mo. Wt. at 7 mo.—17 lb. Still on Sobee. Stools good. No recurrence of rash. No rickets. Enjoys feeding. Cereals and veg. puree added.
J. P.	6 wk.	Since birth never nursed.	Dry eczema over face, arms, chest, legs.	Wk. M.—20 oz. B.W.—10 oz. P.S.—3 T. 6 x 5 oz. C.J.	Positive in 5 min.	No improvement 3 wk.	1st wk.—Rash less extensive. Child rests better. 2nd wk.—Rash almost gone. 3rd wk.—Gone.	Observed 6 mo. No recurrence. Still on Sobee. Wt. 16 lb. Stools good. No rickets. Getting cereals.

Name	Age	Duration of Eczema	Condition of Skin When First Seen	Feeding When First Seen	Skin Test to Cow's Milk	Skin Reaction to Maintenance Formula	Skin Reaction to Soy Bean Formula	Progress to Date
A. S.	2 mo.	1 mo.	Dry and wet, scaly and vesicular rash over face, legs, arms.	W.M.—30 oz. B.W.—5 oz. Karo—2 T. 7 x 5 oz. O.J.	Positive 5 min.	No improvement 2 wk.	1st wk.—No change. 1 mo.—Rash dry but no decrease. 2 mo.—Rash almost gone entirely.	Observed 4 mo. Wt. 16 lb. 4 oz. No recurrence of rash. Still on Sobee. Stools good. O.J., C.L.O., cereals. Stools good.
D. Q.	6 mo.	2-3 mo.	Dry, bright red, scaly rash over cheeks, arms, legs. Very itchy.	W.M.—4 x 8 oz. Mother nursed at night only. Cereals, veg.	Positive 5 min.	No improvement in 3 wk. on milk alone.	1st wk.—Rash less itchy. 2nd wk.—Gone from face and arms. 3rd wk.—Gone entirely.	Observed 9 mo. No recurrence. Gradually desensitized. Now on cow's milk, cereals, veg. soup, O.J., desserts. Wt. 15 mo.—23 lb. Stools good.
J. S.	10 wk.	1 mo.	Wet, raw, oozing lesions over both cheeks, behind ears.	W.M.—32 oz. B.W.—10 oz. M.S.—4 T. 6 x 7 oz. O.J.	Positive 5 min.	No improvement 2 wk. on milk alone.	1st wk.—Rash dry. No new lesions. Not itching. 2nd wk.—Skin smooth almost entirely gone. 3rd wk.—Gone entirely.	Observed 8 mo. No recurrence of rash. Still on Sobee. Stools good. Good gain wt. Wt. 11 mo.—19 lb. 12 oz. Taking other foods well.
A. P.	8 mo.	6 mo.	Dry, red, scaly rash over face and arms.	W.M.—4 x 8 oz. Cereals, veg. soup, O.J.	Positive 5 min.	No improvement in 3 wk.	1st wk.—Rash almost entirely gone.	Observation 9 mo. No recurrence after rash disappeared. Stools good. Took formula well. Gained well in wt. Wt. 1 yr.—21 lb. 4 oz. Other foods added. No recurrence of rash.
S. L.	5½ mo.	5 mo. on and off.	Dry and wet rash over face, ears, forehead, scalp, legs.	W.M.—24 oz. B.W.—12 oz. D.M.—6 T. 6 x 6 oz. Cereals, O.J.	Positive 5 min.	No improvement in 1 mo. (Did not return for 1 mo.)	1st wk.—Rash gone except over legs. 2nd wk.—Rash gone, skin smooth and clear.	Observation 4 mo. No recurrence rash. Stools good. No rickets. Teethed early. Still on Sobee. Wt. gain good.
M. F.	5 mo.	5 mo. since birth.	Dry and wet, vesicular and scaly rash over face—legs.	W.M.—30 oz. B.W.—12 oz. M.S.—6 T. 6 x 7 oz. O.J., cereals, zweibach.	Positive 5 min.	No improvement 2 wk.	1st wk.—Litching less, baby rests better. 2nd wk.—Rash gone except over legs. 3rd wk.—Rash gone entirely.	Observation 5 mo. No recurrence rash. Took formula well. Cereals, veg. added. Wt. 10 mo.—19 lb.
T. L.	7 mo.	5 mo.	Dry and wet rash on face, over legs, arms.	W.M.—32 oz. B.W.—8 oz. Lactose 6 T. 5 x 8 oz. Cereals, veg. O.J.	Positive 5 min.	No improvement 2 wk.	1st wk.—Baby resting more comfortably. 2nd wk.—Rash almost entirely gone. 3rd wk.—Skin clear.	Observed 4 mo. No recurrence of rash. Skin clear. Stools good. Still on Sobee. Other foods added. Wt. gain good. Wt. 11 mo.—19 lb. 10 oz.

Name	Age	Duration of Eczema	Condition of Skin When First Seen	Feeding When First Seen	Skin Test to Cow's Milk	Skin Reaction to Maintenance Formula	Skin Reaction to Soy Bean Formula	Progress to Date
R. S.	6 mo.	6 mo. Since birth.	Dry, bright red, itchy rash over ears, face, legs. Many excoriations.	W.M.—32 oz. B.W.—10 oz. K.S.—3 T. 6 x 7 oz. Cereals, O.J., spaghetti, zwiebach.	Positive 5 min.	No improvement in 3 wk.	1st wk.—Baby does not scratch as much. 3rd wk.—Rash almost entirely gone. 4th wk.—Skin clear.	Observed 8 mo. No recurrence of rash. Gradually desensitized to cow's milk. At 1 yr. mother said, "Child eats anything, no rash." Wt. gain good—1 yr.—20 lb. 8 oz.
S. G.	6 mo.	6 mo. Since birth.	Raw, scaly areas over cheeks, forehead, forearms, legs.	Certified milk—40 oz. B.W.—20 oz. M.S.—3 T. 7 x 8 oz. Cereals, veg., O.J.	Positive 5 min.	No improvement in 3 wk.	1st wk.—Rash dry, not so itchy. 2nd wk.—Skin smooth, clear.	Observed 9 mo. No recurrence rash. Stools good. No rickets. Skin smooth, clear. Good gain in wt. 15 mo. 22 lb.
S. F.	8 mo.	6 mo.	Dry and wet rash over face, arms, legs.	W.M. as desired "about qt.", veg. cereals, O.J.	Positive 5 min.	No improvement in 2-3 wk.	1st wk.—Rash dry, "baby sleeps better at night". 2nd wk.—Skin clear, almost entirely clear.	Observed 4 mo. No recurrence of rash. Stools good. Skin clear. Good gain wt. 1 yr.—22 lb. 3 oz.

peared after 1 month on bottle. Had never received orange juice or cod-liver oil. Was now on half milk and half water formula, 5 oz. every 3 hours. Later put on 21 oz. milk, 9 oz. boiled water, 2 tablespoonfuls cane sugar, giving 5 bottles of 6 oz. each, every 4 hours. Returned in 1 week not improved. Skin test positive in 5 minutes. It was decided to put infant on soy bean preparation, because of severe eczema and unrest. A 2/3 strength formula was started. Returned in 1 week: Taking formula well; stools 1 to 2 times daily; weight 14 lb. 8 oz.; rash dry; not so itchy; eyes fully opened; rash not so extensive; adenitis still marked. Full strength formula given, sufficient quantity. At 5 months: Weight 15 lb.; rash disappeared entirely over face, ears and neck; no itching; glands still visible; taking formula well; stools good consistency; orange juice and cod-liver oil taken readily. At 8 months: no recurrence of rash; gland swelling gone; cereals and vegetable purees taken in addition to previous diet; baby playful and contented. At 1 year, after 8 months of observation, there has not been any recurrence of rash at any time. Child still on soy bean preparation, in addition to regular solid food diet. Weight 22 lb.

SUMMARY

- (1) Our experience with 40 infants fed a milk-free diet, in which the milk was replaced by a soy bean preparation known commercially as Sobee, over a period of from 4 to 9 months, has led us to classify 38 infants as improved, 2 infants as unimproved.
- (2) The eczematous condition of the skin began to show marked improvement after from 1 to 2 weeks under dietary management and to date, after observation for periods varying from not less than 4 months up to 9 months, has not recurred.
- (3) The infants took the soy bean preparation readily. The stools were of good consistency. There were no digestive disturbances. The babies gained satisfactorily.
- (4) In our experience, the use of a milk-free diet, in which the milk was replaced by a soy bean preparation, has proved valuable as a substantial therapeutic diet in infants with severe eczema.

DISCUSSION

Dr. F. W. Lathrop (Plainfield): Did Dr. Levy have any trouble getting the children to take the milk; and did they have any digestive disturbances?

Dr. Maurice L. Ripps (Elizabeth): I would like to know how these children gain, normally, supernormally, or subnormally?

Dr. E. G. Hummel (Camden): In this group of cases, which have shown good results in the use of vegetable proteins, I would like to ask if there was any recurrence of eczema on return to the milk diet. I have had some good results in the use of Sobee, but great difficulty to keep the patient taking it, and, on returning to a milk diet, the eczema re-appeared.

Cow's milk proteins and fats are among the many things that have to do with the eczemas in children, and this method of feeding vegetable proteins is, without doubt, worthy of trial, and, in those cases in which there is a positive skin reaction to milk protein, the results with Sobee will be uniformly good.

Dr. Finklestein (Newark): With reference to getting the babies to take the milk, you may see in the detailed report that 2 babies were starved for 36 hours. They were checked by a Child Hygiene Nurse and the mothers were encouraged as to the details of what we were trying to do. There was no difficulty with the other patients.

We did not find any digestive disturbances. The stools were well-formed, of good consistency and a dark color. In the beginning, we started with the soy bean, and in the first week or so the babies did not gain—the weight remained stationary—but when the proper calories for the baby's weight were given the babies gained from 6 to 8 oz. a week rather uniformly. We did not encounter any large or small gains, just average. We carried these babies through 4 months to 1 year periods, some of them over a year. Later on we gradually desensitized these babies, giving milk in small amounts. We found no return of eczema in these cases where the milk was given in small amounts. I can recall distinctly at least 10 cases, children a year or more of age, who were kept on soy bean mixture for a period of almost 8 months, and then milk was added to the mixture. It took a month to desensitize the children. Out of the 40 cases reported, there were 38 improved or recovered; 2 improved on soy beans initially and the eczema disappeared entirely, and then, while we maintained the soy bean, the eczema returned. No other foods were added. We were unable to explain except to say that the infants were sensitive to something in the soy bean mixture. In the other 38 there was no return of eczema.

Dr. Royce Paddock (Newark): Those 2 children reported might have been sensitive to something else. You can get sensitization to some outside factor.

Dr. Julius Levy (Newark, closing): As Dr. Paddock said, we must remember that eczema is probably the product of a number of conditions, some of them due to sensitization, and that soy bean itself, which may be free from the proteins, may carry some other element. In some cases, barley was added and it was found that some of the children were sensitive to barley. I only want to add a word of caution as to this preparation. You

know Dr. Jacobi's old method of feeding babies was to have a "mixture of some milk and some brains". We will have here to use both ingredients, just as in the feeding of infants generally.

TUMORS INVOLVING THE OPTIC CHIASM; WITH SPECIAL REFERENCE TO SIGNS THAT AID IN DIFFERENTIAL DIAGNOSIS*

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Because headache, paralysis of eye muscles and visual disturbances are common in brain tumor, patients so affected are apt to come first to the ophthalmologist for relief. Cushing and Eisenhardt introduced their paper—Meningiomas Arising From The Tuberculum Sellae—with the following: "When the question 'What's wrong with you?' is put to adult patients who are referred to a neurosurgical clinic, the answer 'My sight is failing' is probably in these latter days far more often given than any other. Not infrequently it is the sole complaint."

At the present time, when focal infections occupy so important a place in our minds, it is important that we approach optic nerve conditions with an open mind and be on the alert not to fall into a habit of attributing too many of them to focal infection. It is common for patients with brain tumor, in giving their history, to tell of repeated operations upon the accessory sinuses at the inception of their disease. Cushing, from his great experience in cerebral neoplasms, has sounded a warning in regard to this point and cautions against ascribing unexplainable optic atrophy to undemonstrable infections in the schneiderian recesses.

It behooves the ophthalmologist, therefore, to be well informed with reference to eye symptoms which may be associated with brain tumor, and be able to give them their proper

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interpretation. Tumors occurring in the region of the chiasm offer an interesting field to the ophthalmologist, as well as the neurologist, and the surgical care of such patients may properly come within the province of the ophthalmic surgeon. The subject has been extensively studied and written about in America by numerous authors, and particularly by Cushing and DeSchweinitz. I have nothing original to offer but thought it would be interesting to summarize and discuss, briefly, the outstanding signs and symptoms of neoplasms affecting the chiasm, with mention of some points that aid in differentiating their types.

Tumors that most commonly involve the optic chiasm are: (1) Those of the pituitary body (hypophysis); (2) of the craniopharyngeal pouch (cysts of Rathke's pouch), the craniopharyngiomas; (3) suprasellar meningiomas; (4) gliomas of or near to the chiasm; (5) aneurysms of anterior cerebral artery and vessels forming the circle of Willis.

Symptoms apt to be common to all of these are headache and visual disturbances. The headache is usually due to intracranial pressure, and the visual disturbance to pressure upon some part of the visual pathway or to toxins affecting the chiasm or optic nerve. These effects manifest themselves by reduction in central vision, changes in the visual field, papilledema, or pallor of the optic disc. The field defects may be in the nature of scotomas, quadrant and hemianopic defects, and concentric field contractions.

To understand the development of some of these tumors, we must recall that the pituitary body, or hypophysis, has a neural and buccal origin. In the embryo, a process from the mouth cavity unites with one from the floor of the fore-brain to form the pituitary body. From the neural portion, the pars posterior and infundibulum develop. The process from the mouth cavity forms a tube (Rathke's pouch), which later becomes a sac, when the opening into the mouth is closed, and from this pouch the pars anterior and pars intermedia develop. Remnants of the craniopharyngeal duct may remain, situated above and below the diaphragm sella, in the pharynx,

and in the body of the sphenoid. The character of the tumor which may develop, and the symptoms, will then be determined by the tissue from which it arises; i. e., the pituitary gland, buccal epithelial rests, meninges, vessels or chiasm. The most frequent tumors in this region are those of the pituitary gland.

Symptoms of pituitary tumors may be placed in 2 groups; (1) endocrine disturbances, and (2) pressure effects.

Endocrine disturbances depend upon the type of growth and age of the patient when the neoplasm develops. Tumors in which the predominant cells are of the eosinophile type of the normal anterior lobe, and known as *chromophile adenomas*, show the symptoms of hyperpituitarism. If onset occurs before the patient has attained his growth, there is a pathologic over-development, with gigantism resulting; if full growth has been attained before the tumor onset, acromegaly results. Acromegaly is a condition in which there is an over-growth of all the bones, and of the soft parts as well, and there may be loss of sexual function, increase in metabolic rate, and hypertrichosis.

Tumors composed of cells resembling the embryonic type of chromophobe cells of the normal gland are known as *chromophobe adenomas*, and they produce symptoms which are believed to be due to hypopituitarism—weakening, or loss, of sexual function; obesity; diminished metabolic rate; and loss of hair. These tumors are 3 times as common as the chromophile type, and occur almost exclusively in adults.

Pressure defects from a pituitary neoplasm may be exerted: (1) Upon the walls of the sella from within; (2) upon the optic chiasm; (3) upon the nerves supplying the ocular muscles; (4) upon the hypothalamus.

Pressure within the sella causes headache and erosion of the walls; upon the chiasm, it produces scotomas, quadrant and hemianopic defects in the visual fields, and, if unrelieved, optic atrophy; upon the adjacent cranial nerves, it may bring about paralysis of one or more of the eye muscles; and, upon the hypothalamus, pressure may result in polyuria, polydipsia, glycosuria, obesity, hyperpyrexia

and hypersomnia, mainly by interfering with the function of the tuber cinereum, for the hypothalamus is that part of the floor of the third ventricle ventral to the optic thalamus and from near the center of which arises the infundibulum and stalk of the hypophysis.

Craniopharyngiomas have their origin in the epithelial remains of the buccal epithelium of the craniopharyngeal pouch, are usually cystic, and are prone to undergo calcification; so that adamantinomas, epitheliomas, cholesteatomas, dermoids and teratomas have been described in this group. Duffy quotes Erdheim as having reported a case of acromegaly with an acidophile adenomatous tumor within the body of the sphenoid. Globus and Chritchley and Ironside have reviewed the literature and given a good digest of the subject of these tumors in their papers. According to Cushing, Dr. Oljneck is soon to report an extensive study of 84 histologically verified craniopharyngiomas from the Brigham Hospital, and it will doubtless be a complete and exhaustive report. Being congenital, these tumors usually develop in early life, but no age is immune. Of the 18 adamantinomas reported by Critchley and Ironside, 10 manifested themselves between the ages of 20 and 60 years; 8 of the patients were younger than 20 years. A great variety of symptoms may present, depending upon the parts upon which pressure from the tumor is made. The growth may encroach upon the hypothalamus, pituitary body, chiasm, any or all of the structures in the interpeduncular space, and upon the cerebral peduncles, producing symptoms referable to interference with the functions of those structures.

The dyspituitary symptoms depend upon the age at which the tumor develops. If it occurs early in life, and pressure from the growth prevents normal development of the anterior lobe of the pituitary gland, somatic and sexual infantilism follow; if in adult life, pressure may cause an atrophy of the anterior lobe of the pituitary gland and the symptoms be those of hypopituitarism.

Suprasellar meningiomas, according to Brain and Straus, develop from specialized connective tissue cells of the arachnoid, where the arachnoid villi project into the circle of

dural venous sinuses that surround the sellar diaphragm. They occur in adult life, and by pressure upon the optic chiasm may cause optic atrophy or visual field defects; and by pressure upon third, fourth and sixth nerves, paralysis of the eye muscles. The pituitary function is not disturbed and there may not be an erosion of the clinoid processes unless the growth attains considerable size, but these tumors may be of such size as to press upon the floor of the third ventricle and bring about a train of hypothalamic symptoms with internal hydrocephalus, and, upon the pituitary body, with dyspituitarism.

Primary gliomas of the optic chiasm are rare. Martin and Cushing described a series of 7 cases, which represented 0.84% of the tumors found in the hypophyseal neighborhood. Later, Cushing reported a total of 18 patients, among whom the average age was 14 years; and 6 of them had a generalized neurofibromatosis.

As one would expect from tumors of this character and location, the visual and field defects present wide variations. Generally speaking, they consist of an irregular bitemporal hemianopsia with an optic atrophy usually occurring in a young person. If the growth extends along the optic nerves the entire field of vision may be lost, the optic foramina enlarged and an elevation of the disc of one or both eyes may ensue either from edema or extension of the neoplasm to the nerve head. If sufficient size is attained to press upon the hypothalamus or pituitary body, then, hypothalamic symptoms or dyspituitarism develop.

Lilly reported 6 cases of chiasmal lesions not of pituitary origin; cases of interpeduncular tumors of various kinds. It is not clear from the description whether the chiasm was involved in the growth or subjected to pressure only. "In 4 of the cases the ocular changes could not be distinguished from those characteristic of a pituitary syndrome."

In a recent paper, Craig and Lilly reported 8 cases of chronic local arachnoiditis that produced chiasmal symptoms similar to those produced by tumors in the region of the chiasm; and diagnosis in 3 of the cases was confirmed at autopsy. Frazier, in a series of

22 cases of arachnitis, or pseudo-tumor, had 4 patients who presented field distortions and stigmas resembling pituitary tumors. Cushing, discussing 1 of his cases of chronic arachnoiditis, makes the following statement: "The diagnosis of cisternal arachnoiditis, however, is one that I am exceedingly loath to make in the absence of postmortem examination, for one may be easily deluded, and not a few patients with symptoms ascribed to such a process have subsequently been proved to have had a tumor. In applying this diagnosis to the case just recorded, the absence not only of a choked disc but of all subjective evidence of cerebrospinal fluid obstruction, will be promptly noted. Hence, there are obvious inconsistencies in the symptomatology of these cases of supposed cisternal arachnoiditis. It is difficult to explain why there should have been no improvement in sight after the operation, in such a case, if the trapped fluid was the sole cause of the loss of vision, when vision will promptly return to blind fields in eyes showing optic atrophy, after the successful removal of solid tumors. The answer may lie in the fact that the same process which causes thickening of the pia-arachnoid may likewise affect and permanently damage the optic nerves. There is, however, no pathologic basis for this assumption."

Fuller Albright collected 29 cases of aneurysm at or near the circle of Willis, and added a report of 2 cases of his own, with a good bibliography. He found that the third nerve was involved in every instance; in most cases the paralysis being complete. The sixth nerve escaped injury in 12 patients. The fifth nerve was involved in 24, and in 19 of these the ophthalmic branch was involved and there was usually pain over the area supplied by this branch, which caused a diagnosis of migraine to be made. In 6 cases the optic nerve was involved by direct pressure; exophthalmos was noted in 6; but there was edema of the eyelids in only 3 cases.

Subarachnoid hemorrhage is common in these aneurysms, the symptoms of which are headache, vomiting, unconsciousness, retinal hemorrhages, bloody spinal fluid; followed later, if the patient lives, by pain in the back,

stiff neck and Kernig's sign. Albright, Beadles and Cushing note the rarity of a *bruit* in the sacculated aneurysms. In only 1 of Albright's cases could a *bruit* be heard, while in the arteriovenous aneurysms it is commonly heard.

When tumors involving the chiasm present the classic syndrome of optic atrophy with bitemporal hemianopsia and, especially, changes in the sella, the diagnosis of tumor is not difficult, but to diagnose the type of lesion may present serious difficulties. It is desirable, however, that these lesions be recognized early in order that injury to the chiasm and neighboring structures may be limited, and responsibility for early diagnosis rests with the ophthalmologist. Many patients do not present themselves until the optic nerve changes are far advanced. The discs may remain normal for a long time even after a bitemporal hemianopsia has developed. Cushing has had such cases and, within the year, I have seen 2 cases of complete bitemporal hemianopsia with normal-appearing nerve-heads.

It is by a careful study of the visual fields that one is most likely to arrive at an early diagnosis of a chiasmal lesion. However, upon an investigation of the subject, one is struck by the variety, or even absence, of changes in the visual fields. Walker and Cushing have reported extensive studies which adequately cover the subject of visual field changes in lesions of the chiasm, and they have stressed the importance of quantitative perimetric studies. They found in a series of 183 cases of hypophyseal tumor, that 148 showed field disturbance, as follows: bitemporal hemianopsia in 47 cases; homonymous, in 22; 79 were blind in 1 eye and the type of hemianopsia could not be determined. "It is notable that bitemporal defects occur only about twice as often as homonymous defects in this group." De Schweinitz found homonymous field defects in 6% of his cases, and Hirsch found it in 7%.

The varying anatomic relations of the structures in the chiasmal area, and the fact that the tumors may not grow symmetrically, but may encroach more upon the structures of

one side than the other, account for the great variety in the field changes. These relations were studied by Schaeffer who, in his dissection of 125 bodies, found that the chiasm may lie in front of, directly over, or behind the hypophysis. In about three-fourths of the specimens, the anterior, and often the greater part, of the chiasm rested on the sella diaphragm. At times there may be a vertical space of 10 mm. between the hypophysis and the chiasm.

Neoplasms having their origin in tissues beneath the chiasm give early defects in the upper temporal quadrants, while those arising from tissues above the chiasm show defects in the lower temporal quadrants. However, before any of the changes produced by pressure manifest themselves, scotomas may be present. The most common location of the scotomas is in the ceco-central area, not uncommonly in the lower temporal quadrants, rarely in the nasal half of the field, and they are prone to be bilateral. These scotomas progressively widen into quadrant defects and hemianopsias. De Schweinitz supports the theory of Fuchs, that they are caused by toxins thrown off from the neoplastic tissues into the cerebrospinal fluid in the cisterna chiasmatica, which bring about a retrobulbar neuritis. Walker and Cushing think scotomas of this character can not be explained on a mechanical basis alone, and that an explanation based on hypersensitiveness of the papulomacular bundle, or toxic actions, are unsatisfactory but must be accepted in the light of our present knowledge. They believe that pressure from the tumor alone upon the chiasm does not account for all of the field changes, but that traction and tension upon the crossed fibers, and counter-pressure from the anterior clinoid processes, dural bands and the bony walls of the optic foramen, are important factors, as also is pressure on the tracts farther back against the peduncles. They report, on the other hand, a case, with a photograph of the tumor, in which the neoplasm has greatly displaced by pressure one of the optic tracts, without producing any change in the visual fields or optic discs. Fay and Gront reported a case of pituitary tumor which pressed the

chiasm against the anterior cerebral artery, causing the artery to indent the optic tract and thus produce an homonymous hemianopsia. Traquair's hypothesis is, that field defects in chiasmal lesions are due to pressure, traction and the action of toxins; that the pressure does not produce the changes by direct action upon the chiasm but by impeding venous return and producing arterial ischemia. He thinks the scotomas indicate activity of tumor growth. It is a common belief that the maculopapular bundle is very susceptible to the effects of toxins, and the toxin theory regarding production of scotomas is probably acceptable to most ophthalmologists. A bilateral scotoma in the visual fields; a scotoma in one field and slight upper or lower temporal defect in the other; or, a slight bilateral upper or lower temporal defect, should put one on guard against a lesion at the chiasm.

Pallor of the optic discs may not appear until hemianopsia has been in existence for some time. In the majority of hypophyseal tumors I have seen, the nerve head has had a pink, waxy color; the disc outline has been blurred by a deposit of connective tissue; and the lamina cribosa blurred by a like deposit. I have rarely seen in such cases an atrophy with clear-cut disc outline, loss of tissue, and evidence of stippling of the lamina cribrosa. Benedict describes discs in pituitary tumors as having a peculiar waxy pallor without shrinkage. De Schweinitz thinks the appearance of the disc in hypophyseal tumors differs from that of simple atrophy due to other causes, in that there is an even distribution of the pallor with a yellowish waxy aspect, and he makes the important observation that these discs are an interpretation of pressure, not true atrophy, and cites the fact that vision is often restored upon permanent removal of the pressure.

To diagnose presence of a chiasmal lesion is much easier than to locate and differentiate the type of neoplasm. Pituitary growths, as a rule, do not present much difficulty in typical cases, where there is pallor of the optic discs, bitemporal hemianopsia and erosions of the sella; but a pituitary growth with homonymous hemianopsia, presents considerable diffi-

culty and there may be doubt as to whether there is present a temporal or occipital lobe tumor. In the latter conditions, there is, as a rule, papilledema, absence of dyspituitarism and optic atrophy is secondary to the papilledema. There may or may not be other neurologic manifestations of lesions in the occipital or temporal lobes. Cushing believes that homonymous hemianopsia, accompanied by primary optic atrophy, may safely be ascribed to a lesion of the chiasm of pituitary origin, and that the macula is more often spared in temporal lobe tumors pressing upon the optic radiations, than in chiasmal lesions.

Craniopharyngiomas usually occur in early life, occasionally in middle life, and, as they are prone to undergo calcification, they show well on x-ray examination. They may erode the clinoid processes and flatten the sella; whereas pituitary neoplasms uniformly expand or balloon the sella. Papilledema is a frequent complication; whereas in pituitary tumors papilledema is rare. De Schweinitz saw 3 cases of papilledema in a series of 85 cases of intrasellar growths, and quotes Uthoff as having found papilledema recorded in 9% of his collected cases.

Suprasellar meningiomas occur after the age of 40, and are usually not productive of dyspituitary symptoms or papilledema. The sella remains unchanged until the growth attains great size, when the clinoids may become eroded and the sella flattened. The visual field changes are likely to develop with less symmetry than in pituitary tumors, one eye being earlier and more markedly affected than the other.

Cushing made a pre-operative diagnosis of suprasellar meningioma in 11 patients showing the chiasmal syndrome, as against 8 diagnostic errors.

Gliomas of the chiasm produce very irregular, early, field defects, may show an enlargement of the optic foramen, and may be accompanied by a more or less general neurofibromatosis.

Aneurysms in the chiasmal area are usually accompanied by paralysis of the third nerve, often paralysis of the sixth also, and it is common to have pain in the region of dis-

tribution of the fifth nerve's ophthalmic branch. Subarachnoid hemorrhage is a frequent complication. Bruit is rarely heard except in arteriovenous aneurysms.

Erosion of the clinoid processes, flattening of the sella, papilledema and visual field changes are frequent complications of internal hydrocephalus produced by lesions remote from the chiasm. The changes in the sella, as shown by x-rays, may lead to an erroneous diagnosis. Orton recently reported 2 cases of obstruction of the aqueduct of Sylvius, illustrating the difficulty which may be encountered in ruling out suprasellar tumors where an internal hydrocephalus exists. (1) A girl, 17 years of age, who developed an unsteady gait, rapidly gained in weight, had polyuria, never menstruated, and was obese and dull. Radiograph of the sella showed marked distortion; the anterior clinoid processes were pressed upward, the floor depressed, and the dorsum almost destroyed. Diagnosis of pituitary tumor had been made at another hospital and the clinical diagnosis made at the Neurological Institute was a primary neoplasm of the third ventricle, unverified. At autopsy it was found, among other changes, that the third ventricle had been greatly distended, the sella much flattened and broadened, and the chiasm flattened by an internal hydrocephalus secondary to proliferative gliosis of the aqueduct associated with a granular ependymitis. (2) A boy, 9 years of age, who was reported by his school teacher as not seeing well. I saw him in the clinic at Bellevue Medical College, found his vision reduced to seeing a large test object in the lower temporal quadrants, and a bilateral papilledema of 2 D. He was sent to the Neurological Institute for study and treatment. Two years prior to admission he had been struck by a taxicab and knocked down, but without serious injury. For 3 months past he had frequency of urination, and for 2 months had gained rapidly in weight and complained of headache. X-ray examination showed a thin calvarium, separation of the sutures, large sella, hazy anterior and posterior clinoid processes, with an intact floor and dorsum. Various other laboratory and clinical tests threw

little light on the condition except that a lumbar air injection showed that no air entered the ventricles. In an attempt to save the patient's remaining sight, the surgeons, in a 2-stage transfrontal operation, exposed the sellar region and an indefinite postchiasmal mass was found; and, in the second stage of the operation a bluish, tense membrane in the chiasmal region was seen, through which was discharged a tremendous flow of clear, yellowish fluid, upon being opened. About 3 weeks later the patient died from a bronchopneumonia, and autopsy revealed an astrocytoma fibrillare beneath the aqueduct of Sylvius, which had grown into the lumen and practically obliterated it; causing an internal hydrocephalus which had greatly dilated the ventricles and caused the anterior wall of the third ventricle to bulge into the chiasmal region like a membranous sac over the anterior surface of which the chiasm was stretched.

At first blush, one would think that the vision being retained in the lower temporal visual fields would be a diagnostic point against a chiasmal lesion, and that the field changes resulted from papilledema; such changes being usually of the type of an irregular, concentric, contraction following upon a secondary optic atrophy. The binasal hemianopsia with loss of upper temporal quadrants, in this case, is explained, I believe, by traction exerted upon the optic tracts and pressing them against the internal carotid arteries laterally, and the chiasm against the sulcus chiasmatis of the sphenoid below.

If vision is to be restored in lesions that involve the chiasm, an early diagnosis must be made, which diagnosis is the responsibility of the ophthalmologist. Quantitative perimetric study offers one of the best aids in diagnosis, and the earlier applied the more helpful it will be. Atypical visual fields and slight change in the optic discs are frequently found in chiasmal lesions. A careful neurologic and endocrine study, in a hospital, are essential in the atypical cases and in differentiating the type of neoplasm in cases presenting the classical, chiasmal, syndrome of bitemporal hemianopsia and optic atrophy.

Erosion of the clinoid processes, deform-

ity of the sella with changes in the visual fields are frequent complications of internal hydrocephalus, the cause of which is a lesion remote from the sella.

The price of a diagnosis is the pains-taking consideration and evaluation of each symptom and sign presented by the patient.

DISCUSSION

Dr. Wells P. Eagleton (Newark): Dr. Johnson's very fine presentation of this subject has covered all the important points. Talking to some of our members just before this meeting, I said that, I thought, these chiasmal tumors really belong to the ophthalmologist, and it seems to me that the ophthalmologist is losing an opportunity if he is not, himself, applying surgical principles to the disposition of these tumors.

My contention about intradural surgery is that a man who has had training in cataract extraction has the best preliminary training for intradural surgery, while the man who has had training mainly for abdominal surgery—because of his very training—should not attempt to go inside the dura. The whole surgery of the abdomen is gross surgery; while intradural surgery is fine, anatomic, microscopic surgery.

I came here on the train last night with 2 neurologists from Syracuse, and I said: "What is the hope of the future of medical neurology? You diagnose a case and then pass that patient along to a surgeon; or, you say that nothing can be done. Medicine has advanced too far for that. You should be surgeons." It turned out that one of those neurologists was already doing his own surgery, and I think that the ophthalmologist will, more and more be doing the intracranial work. Certainly it belongs in his field.

I haven't very much to say, because Dr. Johnson has so thoroughly covered the subject, but a few practical things occurred to me while he was reading his paper and I will speak of them.

Pain between the temples. A woman came to me some years ago, complaining of pain between the temples. I refracted her, and treated her generally, without much effect, so she went to Dr. Tee-ter, who gave her small doses of pituitrin and cured her of the headache. That woman had no gross signs; no cut-off field; perhaps no tumor; but she had some disturbance of her pituitary.

One practical thing that I didn't hear Dr. Johnson say is that you never have papilledema associated with a growth in the sella. If there is a papilledema, the tumor is above the sella. A growth entirely within the sella gives you atrophy.

Concerning the importance of the region about the tuber cinereum; where this little pouch goes down is an area that has a normal perforation from the pharynx into the brain in 5% of individuals. There is a good deal of evidence showing that the wonderful changes following removal of tonsils in these backward children is not entirely due to a mechanical obstruction. There is considerable evidence that the mass of adenoids interferes with the circulation through this important area of the brain, and by removing the adenoids you not only allow better breathing but you improve the circulation through the area of the tuber cinereum. It is a very important area, as Dr. Johnson has said. Touch it, open the third ventricle at operation, and the patient immediately

develops a high temperature; also, he wants to go to sleep; and I have seen one sleep for 4 days.

Dr. Thomas H. Johnson: I wish to thank Dr. Eagleton for his kindly remarks, and you, Mr. Chairman, for the privilege of presenting this paper. I do not know what you have gotten out of it but the experience has been helpful to me, for preparation of the paper helped, in itself, to clarify the subject in my own mind.

Dr. Cushing was the first to suggest that tumors of the chiasm come within the province of the ophthalmic surgeon.

OCULAR MANIFESTATIONS OF FOCAL INFECTION*

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Hackensack, N. J.

Perhaps no practitioner of medicine encounters more of the ill-effects from a focus of infection in some remote part of the body, than does the ophthalmologist, but to him clinical evidence has for years suggested that such effects begin in the lids, frequently, but may involve any part of the eye. Clinical studies have shown him also that foci of infection, often insignificant and symptomless in themselves, are present in a demonstrable form, in a high percentage of cases, and that their thorough removal is followed not only by cure of the eye disease but also by improvement in the patient's general health, provided, of course, that the damage is not already too far advanced.

For years the progressive ophthalmologist has awaited scientific knowledge as to whether bacteria invade the eye, and, if they do, what are the routes of such invasion; whether, instead, their toxins have a special affinity for the eye; whether bacteria change their characteristics, according as they may be grown under certain favorable or unfavorable conditions; whether bacteria lie quiescent in the eye awaiting only some change in the individual's health which would induce them to become active; or whether one or more of these conditions are necessary to bring about some disease of the eye. But, in spite of lacking such knowledge, that busy specialist, having little time for experimental work and knowing that many ideas must of necessity be

speculative and unprovable with the microscope and acid tests of science, for a time at least, has left the study of those subjects which require delving deeply into the fields of bacteriology, immunology and biochemistry, to the abstract scientist, and gone bravely ahead on the basis of clinical evidence alone and found justification for his acts in the results which have benefitted his patients. Meanwhile, science has proved some of his acts to have been right, thus bringing the more accurate knowledge of today out of the realm of speculation.

And what more convincing case can be found than the following: Mrs. — (case record E 17) applied for treatment of an acute iritis. The symptomless tonsils were considered the offenders and a tonsillectomy advised. But the patient, not agreeing with her doctor, did not return. She was next seen at one of our largest eye hospital clinics where she had gone, at the suggestion of her friends, for "proper advice". After 2 months' treatment in the institution she left "because no better". Two days after New Year's she again applied to her first physician for treatment asking that her tonsils be removed. The eye then had a white streak on the cornea, the iritis was severe and she was having marked pain in spite of a well dilated pupil. A tonsillectomy under gas-ether anesthesia was performed the following morning and all eye treatment but atropine and hot compresses stopped. And the patient had no more pain from the time she went to sleep. Her eye was white in about 10 days.

The clinician has had, as a gad-fly to his labors, several facts insistently urging him on, chief among which may be mentioned: (1) rapid and permanent cure of acute primary, or frequently recurring, inflammations, such as iritis, by removal of some focus of infection; (2) temporary, and brief, exacerbation of some inflammatory symptoms when certain infective foci were interfered with; (3) recurrence of inflammation coincident with the development of a new focus of infection; (4) permanent cure of local acute inflammations, in patients having otherwise perfect health, such as the phlyctenular conditions of robust children.

As early as 1789, Erylin appreciated the re-

lationship between tonsillar infection and rheumatism, and in 1801 Rush called attention to the cure of general diseases by extraction of diseased teeth, but it was not until the beginning of the twentieth century that ophthalmologists, notably DeSchweinitz, began to write and speak about the cause and effect relationship between focal infection and diseases of the eye. About 1914, G. H. Bell began the serious advocacy of proper attention to the "Three T's" (teeth, tonsils and toxemias of the intestinal tract) before performing cataract extraction or any other operation which required opening the anterior chamber of the eye. In 1915, A. D. Black emphasized the importance of dental lesions as related to eye diseases, particularly with regard to alveolar abscess at the tooth root-apex and pus pockets beside the root. While serving in the U. S. Army, in 1918, a German war prisoner, who had suffered for several weeks with a severe iritis, was turned over to me for treatment. His teeth were immediately x-rayed, found to be badly abscessed, and were extracted. On the following day his eye symptoms were worse, but within 10 days he was discharged as cured.

In recent years many papers have been written about the rôle of focal infection, but even today, when most physicians are alert to the evils of focal infection, there are many who think so lightly of this subject that they repeatedly neglect to properly examine for and eradicate such sources of danger, or fail to see the importance of some symptomless focus. A hasty glance into the throat may fail to disclose trouble which should have been found by a careful examination.

Billings says: "Focal infection may be defined as a metastatic, systemic or local condition due to infectious microorganisms, or their toxins carried by the blood or lymph stream from a focus of infection, which may be a localized or circumscribed area of tissue containing pathogenic microorganisms, and may be either primary or secondary in character. A *primary focus* is the principal, or first, infected area, while *secondary foci*, with especial reference to the visual mechanism, may be established in the following ways: (1) a bacterial embolus from the primary focus may be deposited, from the blood stream, at some

other spot and become a secondary focus; (2) toxins, alone, may infiltrate the tissues from lymph channels for a variable distance, and the toxic lymph, without organisms, may cause focal inflammation in a sensitive tissue, or the organism or toxin may attack only a specific tissue; (3) the nutrient body fluids, altered by organisms or toxins from a primary focus, may increase liability to pyogenic infections, of various sorts, and in remote tissues, or may cause or aggravate innumerable symptoms; (4) it is quite probable that both primary and secondary focal infections, directly or indirectly, temporarily or permanently, affect our endocrine mechanisms, especially in predisposed individuals, disturbing the delicate balance on which our well-being, at least partly, depends; (5) long continued poisoning from a primary focal infection, may result in sclerotic or other changes throughout the body, most frequently in the blood vessels of the kidneys, brain and retina."

There are 3 principal methods for dissemination of infectious bacteria from a focal point: (1) hematogenous; i. e., bacteria reach the blood stream through the surrounding capillaries and produce bacteriemia, with systemic reaction in accord with virulence of the guest and resisting power of the host; (2) lymphogenous; through the lymph stream, which, at first affording protection (by the lymph nodes) against systemic infection, may become a source of danger; (3) systemic intoxication.

Considering the connection between eye diseases and foci of infection, Rosenow has repeatedly demonstrated the elective tissue affinity of certain strains of pathogenic organisms for the eye, when injected into the blood stream of animals and, logically, we may be quite justified in assuming that the same would happen in human beings under the same conditions. He has pointed out that "streptococci from rheumatic arthritis and myositis, when injected intravenously into animals, are prone to lodge in the capillaries of the iris, producing iritis and other lesions of the eye".

That the virulence of organisms depends upon the media in which they are forced to propagate, and the oxygen tension under which they must grow, is shown by Rosenow, who

took streptococci and bacteria which had long lost their virulence by cultivation on artificial media, and by successive animal passage finally produced eye diseases—showing that “strains from various sources may be made to acquire affinity for the eye”; and he also demonstrated the injected organisms in the area of the lesion and in the blood vessels adjoining the lesion. He says: “The frequency of occurrence of lesions about the ciliary body or iris needs special emphasis; due to the fact that there is here a gradation from an abundant to a very scanty blood supply, and in consequence a gradation in the available oxygen, thus inviting localization and affording opportunity for the growth of bacteria, a circumstance which for some reason would make for lesions by circulating toxic substances, no matter from what source.”

While pathogenic organisms or their toxins propagated anywhere in the body may cause eye disease, the most common and frequent sites are the tonsils, teeth and sinuses. The primary chronic types of infection in these structures are probably a constant source of danger and await only the diminishing of the host's immunity, the increased virulence of the organism, or both. These chronic foci may serve in the sense of a prophylactic vaccination thus maintaining the host's superiority, or the bacteria may not be very virulent and the natural body defenses sufficient to overcome them.

The following bacteria are enumerated by various authors as factors in focal infection: *Bac. pyocyaneus*, *proteus*, *coli*, *mucosus capsulatus*, *tubercle*, *fusiform*, *Welchii*, *tetanus*, *Klebs-Loeffler*, *staphylococcus*, *streptococcus*, *meningococcus*, *gonococcus*, *spirocheta pallida* and *spirocheta Vincenti*.

As predisposing factors in the development of an inflammation, either acute or chronic, in some structure of the eye; over-exertion—mental, physical, temporary or continued; traumatism, recent or remote; a previous state of inflammation of the part; general debility; are most important. Under these conditions, should the remote part become suddenly vulnerable in the face of a long existing focus of infection; or should the focus suddenly flare up, the remote part having been vulnerable for a long time; or, should both factors coincide the eye would become acutely inflamed. One

must remember that a chronic, symptomless focus may become active through trauma, new bacterial invasion and other causes. In those cases where the injurious effects of the primary focus are nearly, but not entirely, neutralized by the body reserves, the secondary focus may undergo such slight but constantly increasing changes as to require long periods of time before subjective or objective symptoms manifest themselves.

The following brief consideration of a few of the eye diseases met with almost daily in practice may not only help in calling attention to the broadness of this field of investigation now unfolding before us but also will indicate more certainly the importance of the subject.

Those stubborn cases of *herpes* involving the cornea, and characterized by long continued and persistent ulceration which resists all treatment, heal with relative rapidity when the focus of infection is cleared up.

Rousseau reports a *chronic conjunctivitis* which is practically bacteria free and resists all treatment, but is promptly cured when the focus of infection is eradicated. I recall a case of that sort—a man who had consulted several physicians about his conjunctivitis before coming to my office, and after my treatment was of no avail, and he had sought advice elsewhere, he wrote to me: “I was advised to have my teeth x-rayed. When that was done my dentist extracted a tooth and within 3 days my eyes were clear.”

Phlyctenulosis, even in apparently robust children, yields rapidly and permanently as soon as tonsils and adenoids are removed.

Uveitis is the most frequent form of ocular disease and this inflammation of the iris, ciliary body or choroid, alone or in combination, is attributed by some to (a) local developmental defects involving the blood and lymph channels which have a unique arrangement, or (b) to cell vitality in a circumscribed area; which may explain the selective affinity of some organisms for uveal tissue, as described by Rose-now and others. When caused by infected tonsils, their removal brings about immediate abatement of symptoms and rapid cure usually follows. On the other hand, when abscessed teeth are causing the condition, their extraction

brings about an immediate increase of local symptoms which lasts for about 24 hours before convalescence begins, but after that the cure is as rapid as is the case with infected tonsils. This difference may be explained by the fact that in tonsillectomy the entire infected area is removed, whereas extraction of a tooth breaks down the natural barriers to extension of infection and leaves infected material in situ to be absorbed.

Cataracts. The crystalline lens is void of blood vessels but there is a continuous circulation of pabulum-containing fluid in the interstices of the lens by which nourishment and mineral salts are carried to it from the surrounding tissues. If this circulation is interfered with in any way, as by inflammation of the adjacent structures, the amount of nourishment to the lens is faulty. Since there is now proof that a focus of infection does cause uveitis, and that uveitis is accompanied or followed by cataract formation, this field of research calls for intensive and well directed study and observation. May we not assume that every case of uveitis, however symptomless and chronic, leaves changes in the uveal tract which interfere with nourishment of the lens, and that this undemonstrable interference continued for a long period of time is a powerful factor in the development of lens opacities in later life?

Glaucoma. Harley, in a paper, entitled "Etiology of Glaucoma, With Reference to Colloidal Chemistry," considers the vast area of capillary walls of the uvea as permeable membranes, and the entire uveal tract as an osmotic system: "Every insult sustained by the capillary walls from birth until death lessens their permeability and predisposes to glaucoma; be they local, inflammatory, traumatic or biochemic. The causes operating to damage the capillary walls of the uvea and alter their permeability, are toxic and traumatic. Each acute or chronic infection that the individual suffers leaves the scar of its toxins or actual organismal invasion in our blood vessel walls." And in the discussion of his paper, Sherman, after saying that Elliott refers repeatedly, in his book, to auto-intoxication as a cause of glaucoma, tells of a patient with glaucoma who experienced a re-

turn to a tension of 16 within 1 week after infected teeth were removed. E. S. Thomson calls attention to: "Typical cases of glaucoma which are not primary glaucoma at all, but which are cases of a very low-grade cyclitis. They begin from a sinus, from a digestive disturbance, or from various internal chemical disorders. You have a short period of inflammatory reaction, and then the inflammatory picture disappears and, to all intent and purpose, the condition looks like primary glaucoma."

Sympathetic Ophthalmia. McLarnin says: "The most plausible theory of dissemination of the specific organisms of sympathetic ophthalmia is that of McKenzie and Berlin, and is called the theory of specific metastasis. It assumes that sympathetic ophthalmia originates hematogenously, just the same as any other spontaneous iridocyclitis, and is due to a specific metastasis from the eye first diseased. This hypothesis is based on sound reasoning, for later experimental research has shown that there is a selective action by many forms of bacteria and that a focus of infection may exist and cause a specific type of trouble in certain forms of tissue, after a certain period of time has elapsed." Perhaps the products from the injured eye, plus a form of infection in another part of the body, are determining factors in the involvement of the second eye.

Granting now, if you will, the relation of acute and chronic eye inflammations to the focus of infection, treatment becomes the removal of that focus, jointly with treatment of the eye inflammation and the general health. At this point the question of when an organ is diseased must be decided. Today most surgeons agree that infected tonsils, abscessed teeth and diseased sinuses should be removed, but not all agree on when disease is present.

Considering the teeth, emphasis must be placed on the alveolar abscess, dead and devitalized roots, crowns and bridge-work, pyorrhea and imperfect root fillings. The first point in determining whether a tooth is abscessed is the determination of whether or not it is dead; for a living tooth does not abscess. Many teeth have abscesses which are subjectively dormant until some sudden trauma, it may be only a slight jar while eating, causes

the process to become active. Ulrich found that 68% of all artificially devitalized teeth had apical abscesses, and that 83% of so-called dead teeth were abscessed.

Teeth are best examined by the dental pulp-tester and the radiograph, though many claim ability to do good work with transillumination. The dental pulp-tester is an electric instrument which sends a current through the tooth; reaction of a living tooth is the subjective sensation of vibration in the tooth; a dead tooth gives no reaction. The radiograph should be made by one accustomed to taking and reading tooth pictures. The general x-ray laboratories fail remarkably in this work. In those borderline cases the use of both methods is of the highest value.

In the examination of a tooth for a possible focus of infection the following additional points will indicate the possibility of trouble: (1) Decayed teeth harbor a great deal of infection. (2) Crowns and bridge-work cover multitudes of bacteria; a covered tooth may be dead or alive. (3) Pyorrhea alveolaris affords excellent opportunity for the absorption of unlimited bacterial end-products. (4) A suspicious tooth should not be removed until all other foci of infection have been eliminated.

I remember an interesting case of acute iritis which I once saw at the New York Eye and Ear Infirmary on the service of Dr. G. H. Bell. The patient was wearing upper and lower complete plates. When asked by Dr. Bell if she had any teeth, she said "No" and proudly opened her mouth to show the plates. Dr. Bell asked her to remove them, which she did, and we saw that all teeth had been cut off even with the gums and plates put over the roots.

The finding of pus in tonsils requires more than the cursory inspection so often made before ruling them out as innocent. Since the crypts harbor infection, rather than the tonsil tissue, and since small tonsils covered, and largely hidden by, the anterior pillars contain many crypts, pressure and suction should be used in the examination. Pressure is perhaps best made by placing a tongue depressor against the bottom of the anterior pillar and pressing backward, outward and upward, which will cause the patient to gag and thus

expose the entire tonsil, and pus may be seen, or plugs of caseous material, welling out at some point. Many tonsils show plainly the yellow top of an abscess. Patients who have had peritonsillar abscesses are very prone to retain a pocket of pus behind the tonsil, to remain dormant, subjectively, for months at a time.

Examining the sinuses, we have recourse to inspection, transillumination, radiography and the subjective symptoms. Inspection may show pus along the turbinates. The patient may admit the dropping of secretion into the throat from the nose. Transillumination may show a clouded antrum and x-rays may show positive antrums, ethmoids, or sphenoids. But here again, negative radiographs and transillumination findings do not eliminate positive trouble, and the utmost care must be exercised in the final decision before a sinus can be given a clean bill of health.

Time compels the closing of this lamentably brief consideration of one of the most far-reaching and important subjects of all time, the final solution of which will be secured only by the joint observations of clinicians and the unending investigations of the research laboratory. I know that I am but voicing the opinion of the majority when I say that with that solution will come the eradication and cure of many of our most serious and, at present, little understood eye diseases.

In conclusion, may I say that most eye diseases are but symptoms pointing persistently to trouble in other parts of the body. With each advance of clinical medicine and science comes more surely the realization of this truth and renewed determination to "carry on."

DISCUSSION

Dr. Charles Zehnder (Newark): I think our hardest problem is to locate the focus of infection. The patients fall into 2 groups: (1) a type in which the focus of infection is readily found, easily eliminated, and the eye condition is cured; (2) the type to which belong many patients from the upper strata of society, persons who take good care of their health, where the disturbing focus is difficult to locate.

I recall a patient seen very early in my practice—a doctor's wife—who had run the gamut of examinations, but had repeated attacks of low-grade iritis, which did respond to treatment but always recurred when the treatment was discontinued. Eventually, she had a chronic salpingitis operated on, and she has never since had a recurrence of the iritis.

Another case, that of a lawyer who took ex-

ceptionally good care of his health, who had recurrent attacks of very small ulcers of the cornea, which responded to treatment but always recurred, after 3 or 4 months. He was examined by an internist, a surgeon, x-ray men, and eventually by Dr. Gray, of Newark, who very carefully cultured his teeth, and found that the trouble was in the alveolar process, and a pyorrhea. Dr. Gray made a vaccine for him. That was 3 years ago, and a complete recovery followed the vaccine treatment.

When it comes to sinus infections, we see many cases in which the sinuses are suspected, but one interpreter says they are negative and another says there is a low-grade infection. Well, what shall we do; especially when it applies to the posterior ethmoids? I think those are very difficult cases. I think it is also very difficult, where the dentist has stated that all the teeth are normal. It is rather hard to recommend to a patient of that type, to have his teeth removed, and then, after they have been removed, to have to admit that the teeth were not the cause.

Two years ago I had the misfortune of seeing a sympathetic ophthalmia in an under-nourished boy of 12, who had a mouthful of infected teeth and very rotten tonsils. Of course, they were all removed immediately, including the offending eye, but, unfortunately, his eye condition went right on. We felt at that time that if the boy had enjoyed good care previous to the injury, he probably would not have developed sympathetic ophthalmia. Of course, that is only a conjecture, and we cannot prove it; nevertheless, we all felt that the focal infection was the cause of his developing sympathetic ophthalmia.

As another instance, I saw a woman of 62 who had repeated attacks of low-grade iritis. I treated her for some time, with no results. An internist treated her, with no results. I asked about her teeth, and she said every tooth had been extracted. Eventually, I said: "I wish you would have an x-ray picture of your gums." I can't tell why I did it, but I did, and we found a decayed root which was completely covered over. We had it removed and that woman has never had an attack of iritis since, and that was 3 years ago.

Dr. C. Littwin (Englewood): As the previous speakers have mentioned, the very simple foci of infection, of teeth and tonsils, are very readily seen and we all probably can cite numerous cases, but let me refer to 2 patients I have had under observation within the past few months, where the focus of infection was not so simple a matter. One was a young lady, about 21, who had experienced several attacks of iritis and had gone through the general examinations that we ordinarily make, that is, teeth x-rayed, tonsils removed and chest proved to be negative, but to whom, once every 3 or 4 months, this condition recurred. That went on for almost 3 years. We even gave her specific treatment, thinking that there might be, despite a negative Wassermann, some specific condition that caused recurrence of the iritis. It finally occurred to us to do a tuberculin test, and it proved very strongly positive, and we started her on injections of Mulford's tubercle fibrin. Since then she has had no recurrence of symptoms, despite the fact that she has lived in the city for the past 6 months. I have a similar case now under treatment; a young man who also had all the classical things done, without benefit until we secured a positive result to the tuberculin test.

Dr. Thomas H. Johnson (New York City): I recall 2 patients who were not eye cases but had conditions due to focal infections.

When I was in the army, I saw 2 patients with severe polyarthritis, diagnosed as acute articular rheumatism, to whom medication seemed to give no relief. Their tonsils were removed, and in each case the result was miraculous. Those patients were up within a week or 10 days, and able to go about. It struck me very forcibly that focal infections are a very important factor in various types of infection.

Dr. Zadoc L. Griessmier (Elizabeth): I have in mind a man who had keratitis, who will serve as an illustration of how long a focus can remain latent. He had abscessed teeth removed, but the condition persisted and I then went into his history a little more carefully. He had suffered a gonorrheal infection some 18-20 years previously but said he had been properly treated and felt that he was well. I sent him to a urologist, who reported that he had a low-grade prostatitis, with a great many pus cells and some intracellular organisms present. With proper treatment, and the man was very coöperative, the keratitis began very promptly to clear up.

The mystery was that an infection should lie dormant for that number of years without any manifestation previous to the corneal ulcers.

Question: What kind of treatment did you use, vaccine, or not?

Dr. Griessmier: Massage of the prostate, and vaccine.

Dr. Arcangelo Liva (Rutherford): In 1927, Mr. N., aged 61, was referred to me in the latter part of November for refraction. He had practically both eyes blinded and no helpful correction could be given. I began to look him over thoroughly for focal infection, and concentrated on the maxillary sinuses. Irrigation did not give any results. Just before Christmas, 1927, I performed a bilateral maxillary sinus operation on him, and 6 weeks after, with refraction, brought his vision to 20/20 with the right eye and 20/30 with the left.

A certain Miss C., aged 21, had her right eye very much affected. We did an ethmoidectomy and she was improved to normal vision within 4 or 5 weeks.

A married woman, Mrs. G., age 33, has been under the care of an ophthalmologist for 11 weeks without any results. She had cyclitis, no vision whatsoever, and I could not see the disc through the media. I eliminated every focal infection. I have to say that this patient had suggested to the ophthalmologist the possibility of her tonsils being infected, but he did not take the hint and overlooked this factor.

After I had eliminated every other condition, I had a basal metabolism made and the tonsils were removed. Within 24 hours she saw colors. On the fourth day she had 20/100 and finally improved to 20/30.

Referring to Dr. Bell's toxemias, I operated on a man for cataract about 2 years ago and when I extracted the cataract of his left eye, on the second day he developed a terrific cyclitis. I don't know whether Dr. Hubbard remembers that, but he saw the patient in consultation with me. I must say in this particular case that I was negligent, if I can be accused of negligence in not looking into his mouth. He had a terrible mouth. We gave him a temporary treatment, and after a while, when he went home, he went to the dentist and had all his teeth removed. In 2 years I have seen the patient several times, but he has never had a recurrent attack of iritis or cyclitis.

Dr. Elbert S. Sherman (Newark): It seems to me the time is long past when it is necessary to present any arguments or cite any cases to prove the relationship between focal infection and certain inflammatory diseases of the eye. When I first became interested in ophthalmology, a number of years ago, up to 1915, or '16, or possibly '17, we recognized 4 causes for, or types of iritis; namely, syphilis, which was then credited with causing about 60% of all cases; rheumatism; tuberculosis; and then the class where we never found the cause or suspected the cause, and which we called idiopathic.

I was interested in looking over, a day or 2 ago, the proceedings of last year's meeting, and the first meeting, I think, of the Association for Research in Ophthalmology. They took for the subject last year, the etiology of acute iritis. There are many interesting things in that series of papers, and of course focal infection has a very prominent place. I was interested in noting the relative importance of focal infection, as a cause of iritis, as given by Dr. Thomas B. Holloway in his paper on "Evaluation of Etiologic Factors in Acute Iritis". Dr. Holloway, as you all know, is a very conservative observer, and after giving this whole subject a great deal of thought and attention, and after going over his own personal experience, he gives the order of importance which he attaches to the different causes of iritis. He puts focal infection first, at the head of all other causes; syphilis comes second; the undetermined group is third; tuberculosis, fourth; and infectious and exanthematous diseases, fifth.

I have been very much impressed by the effect that focal infections have on corneal injuries and perforating injuries of the eye. Time and time again, I have seen conditions that ordinarily shouldn't have caused very much trouble, should have healed promptly and without complications, go on week after week until some sort of focal infection, usually in the mouth, was removed. I refer particularly to ulcers, infections of the cornea, iritis, and, every once in a while, there was a case of iridocyclitis or iridokeratitis, brought on by what would ordinarily be considered a trivial, superficial injury of the eye.

As I said a while ago, it is entirely unnecessary to cite cases to prove these things. We are all familiar with them. I have felt for a long time that no intra-ocular operation, except in an emergency, should be undertaken without thorough inspection of the mouth and the throat, and whatever other physical investigations seem necessary to uncover possible sources of focal infection. I know that I have had less serious reactions in intra-ocular operations, particularly in cataract cases, since I have paid more attention to the mouth—before an operation.

Dr. Samuel T. Hubbard (Hackensack): I am very much pleased and gratified to hear the report of so many cases. Of course, as Dr. Sherman says, the time is past when it should be necessary to call attention to these facts. Unfortunately, the time is still with us when the general practitioner, and I must say many of the ophthalmologists, are careless. Dr. Liva mentioned the case in which he was negligent; I mentioned a case in which I was negligent.

I have had focus of infection talked to me since 1914, or probably a little previous to that, when Dr. Bell, with whom I was associated at the Infirmary, was putting so much stress on his "three

T's." I remember at that time when I would ask him about the "three T's," a smile would come over his face, as though he didn't want to say too much about it. Maybe he was wrong? However, he stuck right to it, and he accomplished a great deal.

DIPHTHERIA CARRIERS QUICKLY CLEARED-UP BY X-RAYS

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The part played by *carriers* in the spread of contagious diseases is well recognized by the medical profession today, and that fact has removed much of the mystery heretofore attached to some epidemics. The public health authorities frequently find a *carrier* to have been the source of an outbreak of some contagious disease, and they prevent further epidemics by isolating the disease carrier.

It is not difficult to understand that a person who has had an attack of any contagious disease may still carry the causative germ long after recovery from that disease, and may infect others, but it is difficult to comprehend how individuals may harbor virulent disease organisms and not develop the disease themselves. These carriers of virulent germs are a potential menace to the community, and they do frequently infect those who are susceptible to that disease.

A disease carrier, when detected, finds himself in a very unfortunate position, because of the enforced isolation required until the virulent germs which he carries can be exterminated. The long time required for successful treatment of diphtheria carriers makes their economic loss considerable, or, in the case of an indigent individual, places a large financial burden on the community. The treatment ordinarily used for diphtheria carriers is unreliable, time consuming, and at best, an unsatisfactory problem for the physician. The recognized treatment of diphtheria carriers by antiseptic sprays, gargles, insufflations, local

applications of various antiseptics, and removal of the tonsils, was so unsatisfactory for the physician, time consuming for the patient, and costly for the individual or community, that I determined to experiment with x-ray treatment to clear-up such cases. My idea of x-ray treatment was taken up with our roentgenologist, Dr. Winthrop Davison, who experimented with x-rays for a time, and finally solved the problem with the deep-therapy x-ray machine; the average dose being 6000 milli-amperes seconds, with a filter of 1 mm. aluminum and 0.5 mm. of copper.

We have treated at the Municipal Hospital to date, 18 patients with 100% success. In 15 of the 18 treated, only 1 treatment was necessary. After the treatment, we take 4 nose and throat cultures, and require them to be all negative for diphtheria bacilli before discharging the patient as cured. In the 3 who did not clear up after 1 treatment, the x-ray therapy was repeated after a suitable period of time, and 3 treatments resulted in success. In our series, 2 patients had their tonsils removed before admission, but the diphtheria bacilli still remained. Many of these carriers undoubtedly harbor their germs in the paranasal sinuses, which a tonsil operation, of course, would not clear up, and this major operation, you must remember, carries with it a mortality rate, while the x-ray treatment has no operative risk. In order to explain the *modus operandi*, our laboratory technician exposed diphtheria cultures to the same x-ray treatment which our radiographer uses on diphtheria carriers. After this treatment most of the cultures were sterile, but a few developed sparse growth. We conclude, therefore, that action of x-rays in these cases is mainly germicidal, but also, probably, alters the tissue soil so that conditions are unfavorable for the further existence of diphtheria bacilli. It should be borne in mind that not all diphtheria bacilli are virulent, and therefore, a virulence test is routine at the Municipal Hospital before treatment is begun. We have found avirulent diphtheria organisms in about 10% of the carriers admitted. Of course, patients found avirulent are discharged without treatment. Before x-ray treatment

was used, our diphtheria carriers remained in the hospital for many months; whereas 13 of the 18 patients treated to date were discharged in 1 week, after 4 negative tests for diphtheria bacilli. In 2 of our cases the treatment was repeated twice and these patients remained less than a month.

This method of treatment for diphtheria carriers is evidently reliable, safe, and quickly achieves the desired result, saving much expense, and mental stress, caused by the many months of quarantine required when the ordinary treatment of this condition is employed.

VALUE OF X-RAY EXAMINATION IN DISEASES OF THE BILIARY AND GASTRO-INTESTINAL TRACTS

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The Roentgen ray has contributed its full share to the diagnosis of diseases of the biliary and gastro-intestinal tracts. In 1897, only 2 years after discovery of the x-ray, bismuth was used to visualize the intestinal tract. In 1909, the definite radiographic evidence of a gastric ulcer was demonstrated. Modern equipment, plus chemical and physical research, has contributed much to the roentgenologist, and now these tracts, by various modes of study, can be well and thoroughly visualized. Although we still have our limitations, very few abnormalities should pass undiagnosed.

Today absolute reliance is placed on a diagnosis made by a competent roentgenologist, in disease of the above named tracts. Daily the surgeon and the internist become more dependent on the radiographic study of patients. The day of the exploratory operation is fast passing, and the surgeon is very loath to open an abdomen until he has reliable roentgenographic data and a diagnosis well established.

The most rapid strides in the past few years have been made in study of the biliary tract. Until comparatively recent times, we were given but little reliable data concerning the gall-bladder and its function. The gall-bladder is small and is surrounded by large organs, which have a much greater density, and nearly always the gall-bladder disease is noted in the obese, which further obscured our study. At that time, flat films were made with compression on the abdomen, in the hope of outlining the gall-bladder or visualizing stones. Unfortunately, biliary calculi are nearly all of the cholesterol type and are not opaque. A few are calcified, and these few were usually successfully shown.

Today the gall-bladder is made to fill with an opaque solution, tetra-iodo-phenolphthalein, which may be given orally or intravenously. It is usually given orally, as that is the more practical and convenient method for office examination. The amount given depends on the body weight; averaging approximately 45 gr., taken in a glass of grape juice 12 hours before the x-ray examination. This is absorbed from the intestinal tract, enters the blood stream, and is excreted by the liver, entering the gall-bladder and definitely visualizing it. Information concerning its size, shape, position, and function is obtained, and calculi will be shown, either by negative or positive shadows, depending upon their size and position in the gall-bladder. Much valuable information is also given as to patency of the ducts and to function. The gall-bladder should fill with dye in 12 hours, concentrate it in 15 hours, and can empty more than 2/3 of its contents in 1½ hours after the fat meal, which consists of ½ glass of milk, ½ glass of cream, and a raw egg mixed together.

I feel that the intravenous method has a greater degree of accuracy, as the tetra-iodo-phenolphthalein is injected directly into the blood stream and thus cannot be influenced by alteration of the gastric acidity, nor is there opportunity for the gastro-intestinal tract to evacuate it before a proper amount of absorption has taken place.

I use the oral method routinely for ambulatory office patients, and the intravenous

method for hospital patients, unless contra-indicated. The intravenous method should not be used in common duct obstruction nor with patients who are very ill and toxic.

Recent studies have shown that 20% of adults have gall-stones, and that 20% have cholecystitis some time during their lives. So, you can readily see that any help the roentgenologist can give, in diagnosis, is an invaluable aid to the internist and surgeon.

When a stone is blocked in the common duct, very little information can be obtained by x-ray examination. The stone is quite small and usually of the non-opaque, cholesterol type. Dye will not enter the gall-bladder in these cases, and there will be no visualization. These patients are usually, also, quite toxic, and I think the dye should not be given.

In order to have a satisfactory cholecystographic study, the dye must be absorbed, the liver must excrete it, the ducts must be patent, and the gall-bladder mucosa must be capable of concentration.

When studying the barium-filled duodenum, much reliable information can be gained concerning the gall-bladder; adhesions and pressure defects are common findings and fistulous openings between the gall-bladder and duodenum are sometimes noted.

The gastro-intestinal tract is visualized from the time the barium meal enters the mouth until it leaves the rectum. Interpretation of the findings in this tract are the most difficult of any encountered by the roentgenologist. Long experience, checked by operative and autopsy findings, are an absolute necessity. Both fluoroscopic study and films are essential in this examination.

The pharynx and esophagus are first observed, after a general chest examination. The swallowing function is carefully checked by use of thin and heavy barium mixtures and a barium-filled capsule. The presence of a diverticulum, of malignancy, or spasm must be eliminated. Occasionally a herniation of the stomach through the diaphragm is noted.

Unquestionably, the outstanding advancement in diagnosis of ulcer and cancer of the stomach can be attributed to x-ray examinations. Roentgenologic examination of the

stomach, if properly done, will exclude or diagnose more gastric ulcers or cancers than any other known method.

If gastric syphilis, gastritis, benign tumors such as polypi and myomas, are omitted from consideration, all lesions of the stomach must be regarded, when first seen, in 1 of 3 groups: (1) frankly malignant, (2) frank ulcer, (3) gastric ulcer or carcinoma. The sole pathognomonic sign of ulcer is the niche, the barium cast of the crater. When seen in profile, the niche appears as a localized prominence on the margin of the gastric shadow.

Any ulcer over 2.5 cm. in diameter is prone to cancerous degeneration. Ulcers of large size, for example those with a diameter of a quarter or larger, are usually malignant. The benign true ulcer is less than 1.8 cm. in diameter.

An absolute diagnosis should be made in all patients suffering from advanced gastric carcinoma. While on this subject, let me present a plea for early radiographic study of all patients over 35 years of age suffering from vague gastro-intestinal disturbances. The mortality of gastric carcinoma can be greatly lessened by early recognition and prompt surgical treatment of precancerous and early cancerous lesions. The problem of cancer becomes more acute daily, both to the profession and to the general public.

The stomach has the distinction of being more frequently invaded by carcinoma than any other organ in the body; thus the great importance of early recognition by x-ray examination. Let us examine these pitiful cases before they reach the stage of cachexia, loss of weight and strength, and palpable tumor formation, for at that stage, nothing can be done by any method known to medical science.

In acute perforation of a gastric or duodenal ulcer, invaluable aid is given by x-ray examination, as very frequently, the roentgenogram will demonstrate the presence of free air in the abdominal cavity, which usually accumulates under the right diaphragm.

The presence of gastric syphilis should never be overlooked. It gives a deformity resembling carcinoma and similar changes in the gastric acidity are present. A diagnosis of

gastric carcinoma should not be made or resection permitted, until syphilis has been thoroughly excluded by all known tests.

Duodenal ulcer is far more common than gastric ulcer and fortunately is not prone to malignancy. It is rare to see primary malignancy in the duodenum. True ulcer, with a niche, may be found on x-ray examination, or a duodenitis may be present, which consists of a stippling and congestion of the serosa with no induration. Both have characteristic roentgenographic findings.

Frequently, the cicatricial changes in a large chronic ulcer may cause a partial or complete duodenal obstruction which can only be relieved by operation. Adhesions to the gall-bladder are commonly noted. Frequently, a diagnosis of carcinoma of the head of the pancreas can be made, due to the deformity and increased curve in the second and third portions of the duodenum. In the small intestines, more difficulty is encountered, in the diagnosis of non-obstructive lesions, than in any other portion of the gastro-intestinal tract, because barium passes rapidly from the stomach to the cecum in less than 6 hours. However, serial studies will often demonstrate the presence of jejunal ulcerations and local inflammatory areas associated with spasm. The region of the stoma of a gastro-enterostomy should be searched carefully for marginal ulceration. The terminal ileum is frequently involved in inflammatory lesions around the appendix, and stasis and obstruction may be demonstrated.

The colon is most amenable to roentgenographic study, both by means of the barium meal and barium enema. The barium enema is of the greatest diagnostic value. The injection of air is also an invaluable aid in colonic study. In the study of the large bowel the presence of malignancy, diverticulae, ulceration, colitis, either of the mucous or spastic type, adhesions, or appendiceal disease must be carefully eliminated.

The normal appendix should be demonstrated by x-ray examination. Changes of a chronic appendix will be shown by the presence of adhesions, kinking, segmentation, with alteration in the size of the lumen. Tenderness on palpation during fluoroscopic examina-

tion is of great importance. Frequently, a palpable barium-filled appendix is noted. Practically no reliable roentgenographic data can be obtained in patients when the appendix does not fill with barium, or in the acute inflammatory types of appendicitis. The most valuable data concerning the appendix is obtained by use of the barium meal, with serial studies from 6 to 24 hours. As a rule, the appendix can not be demonstrated by the barium enema.

In spastic colitis, the haustrations are excessive and the colon is quite contracted. In mucous colitis, the bowel is shown to be cylindrical in outline with few haustra markings.

Diverticulum is most common in the lower colon, but others may be scattered generally throughout the large bowel. They are shown as bud-like masses extending from the lumen of the colon and are exceptionally well shown by injection of air after the barium enema.

The diagnosis of intestinal obstruction is greatly facilitated by x-ray examination, either in the acute or chronic form. In suspected cases of acute obstruction, the barium should not be given by mouth as it clogs an already overfilled bowel and valuable time is lost waiting for it to reach the intestinal tract. Usually, sufficient information can be obtained from the flat film by lateral and anteroposterior exposures. The intestines, due to the obstruction, become air-filled and well delineated. The distended small bowel will be shown by its web-like appearance in stepladder formation. The colon also will be absolutely differentiated from the small bowel. After an interval, the coils of the bowels fill with fluid and definite fluid levels will be demonstrated, which absolutely confirms the diagnosis of obstruction. Barium enema is quite permissible and essential in cases of obstruction. This should immediately diagnose or rule out any colonic involvement.

Neoplasms of the colon manifest themselves in irregularities and constriction of the lumen. The barium enema has the greatest diagnostic value in the colon study. If the growth is in the rectum, digital or proctoscopic examination is all that is necessary, but if beyond the reach of finger or proctoscope, a careful roentgenologic examination will show the lesion.

SUMMARY

(1) Unquestionably, the outstanding advancement in the diagnosis of disease of the biliary and gastro-intestinal tracts can be attributed to x-ray examination.

(2) Every patient having vague or frank abdominal symptoms should have an early and thorough x-ray examination by a competent roentgenologist.

(3) The major portion of all biliary and gastro-intestinal diseases can be readily diagnosed by x-ray examination.

CASE OF TRICHINOSIS

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Following is a report of 3 cases of a serious, and often fatal, parasitic infection, namely, the *Trichinella spiralis*, all occurring in the same family, and at the same time.

On January 12, 1930, I was called to attend a girl aged 15, who complained of peculiar pains in the abdomen, watery diarrhea, fever and a marked swelling of her face.

About 1 week before Christmas, the mother (Mrs. Slavick) prepared some pork from her own stock of pigs, by a process of salting and spicing, and without cooking, and stored it away in the pantry to be served for their Christmas dinner, after being steamed for about 30 minutes. On January 5, the daughter, a girl of 15, began to complain of headache, pain in the neck, pain in the abdomen, diarrhea and fever. She had no medical attention until January 12, when her face began to swell, especially marked under her lids, and she was sent then to the hospital. Two days later, January 14, the mother was admitted, complaining of practically the same symptoms. The following week, her father was admitted, with the same complaints except that he complained also of pain in the face.

The physical examination of all these patients was essentially negative, except for a peculiar swelling of the face; heart and lungs negative; abdomen negative, except for per-

haps, a slight tenderness throughout. No tenderness of any other muscles except in Mr. Slavick's face, where the muscles of mastication were somewhat tender.

LABORATORY FINDINGS

Olga: Urine—Trace of albumin; occasional hyaline cast.

Blood—

Jan. 13:	W.B.C.	P.	L.	E.
	7200	64	36	0
	7600	80	12	0
	12800	47	53	0

Wassermann, negative. Stools negative for blood, ova and parasites.

Mrs. Slavick: The mother's laboratory findings were somewhat more complete, perhaps because she was the sickest of all. Urine showed a marked trace of albumin; an occasional hyaline cast.

The P. S. P. Function test was 29%. Blood chemistry was normal except for relatively high chlorides—625.

BLOOD COUNTS

	R.B.C.	Hb.	W.B.C.	P.	L.	E.
Jan. 14.....	3,280,000	80%	3200	82	18	0
Jan. 21.....			7800	80	19	
Feb. 4.....			28400	72	28	0
Feb. 5.....			27300	60	20	8
Feb. 6.....			12400	63	18	10

Widal, negative. Wassermann, negative. Stools negative for blood, ova and parasites.

The father's laboratory findings were practically the same. Urine showed a trace of albumin and granular casts. P.S.P. test was 43%. Blood chemistry normal except for high chlorides—594.

BLOOD COUNTS

	Hb.	R.B.C.	W.B.C.	P.	L.	E.
Jan. 17.....	80	4½ mil.	6800	68	31	1
Jan. 21.....	78	4½ mil.	7000	70	27	0
Jan. 27.....	80	4½ mil.	7200	79	12	3
Feb. 5.....			13800	69	14	11

The temperature of all these patients was irregular, ranging from 100° to 105°, and only at the end of their second week at the hospital did it show any signs of staying near to normal. The pulse rate was between 90 and 110; respirations, 24.

Their complaints of diarrhea, swelling of the face, and pain, if they had any, disappeared after 4 to 7 days and the only puzzling feature of their illness; i. e., an erratic temperature curve, remained.

On January 31, 1930, a small piece of deltoid from Mrs. Slavick's muscles, was excised under local anesthesia, and on microscopic examination showed the following:

Vacuolated muscle fibers. Pronounced cellular infiltration with embedded *larvae of Trichina spiralis*. There was only an occasional eosinophile present.

Discussion: The *Trichinella spiralis*, in its adult condition, lives in the small intestine. The disease is produced by the embryos, which pass from the intestines and reach the voluntary muscles, where they finally become encapsulated larvae (muscle trichinae). It is in the migration of the embryos (possibly poisons produced by them) that the symptoms are produced.

The ovoid cysts were described in human muscle by Tiedemann, in 1822, and by Hilton in 1832; the parasite was figured and named by Richard Owen. Leidy, in 1845, described it in the pig. For a long time, the trichina was looked upon as a pathologic curiosity, but in 1860 Zenker discovered, in a girl in the Dresden Hospital, both the intestinal and muscle forms, and established their connection with a serious and often fatal disease.

Description of the parasites: (a) *Adult or intestinal form.* The female measures 3-4 mm.; the male, 1.5 mm.; and has 2 little projections from the hinder end. (b) *The larva, or muscle trichina,* is from 0.6 to 1 mm. in length and lies coiled in an ovoid capsule, which is at first translucent, but subsequently opaque and infiltrated with lime salts. The worm presents a pointed head and a somewhat rounded tail.

In the female, the genital tract is represented by a single tubular structure. Next to the ovary is the *receptaculum seminis*, and passing forward in the tube the fertilized ova are found in various stages of development, until in the middle of the body the embryos become apparent.

When flesh containing the trichinae is eaten by man, or by any animal in which the development can take place, the capsules are digested and the trichinae set free. They pass into the small intestine, and about the third day attain their full growth and become sexually mature. On the sixth or seventh day, the embryos are fully developed. The young produced by each

female trichina have been estimated at several hundred. The time from ingestion of the flesh containing the muscle trichinae, to development of the brood of embryos in the intestines, is from 7 to 9 days. The female worm penetrates the intestinal wall and the embryos are probably discharged directly into the lymph spaces, thence into the venous system, and by the blood stream to the muscles which constitute their seat of election. They have been found in the blood early in the infection; also in the spinal fluid in some cases. They have occurred in the fluid of a pleural exudate, in the milk of a nursing woman, and in the pus from a furuncle. After a preliminary migration in the intermuscular connective tissue, they penetrate the primitive muscle fibers, and in about 2 weeks develop into the full-grown muscle form; i. e., the larvae. In this process, an interstitial myositis is excited and gradually an ovoid capsule develops about the parasite. This process of encapsulation has been estimated to take about 6 weeks. Within the muscles, the parasites do not undergo further change. Gradually, the capsule becomes thicker, and ultimately lime salts are deposited within it; this change may take place in man within 4 or 5 months. In the hog, it may be deferred for many years. Calcification renders the cyst visible, as a small, opaque, oat-shaped body. The trichinae may live within the muscles for an indefinite period and have been found alive and capable of developing even 25 years after their entrance into the system.

In the hog muscle, the capsule is not readily calcified, so that the parasite is not visible as in the human muscles.

Many experiments have been performed to determine whether this species is transmitted by the contamination of food with intestinal contents. With the exception of the results obtained in a comparatively recent investigation, all attempts to produce infection in this manner have failed.

Without doubt, the parasite is always acquired by the human being through the ingestion of trichinous meat and this probably, in general, also holds true with respect to its transmission in other species. Encysted trichinae are killed by heating to 55° C., so that

the temperature of 58.3° required by the U. S. Bureau of Animal Industry as the minimum temperature at which pork products must be cooked in establishments operating under Federal inspection, is evidently effective.

The parasite is acquired by the human being through eating raw or imperfectly cooked pork.

Trichiniasis is characterized by the presence of: digestive disturbances; muscular tenderness; and continuous fever.

The disease may be divided into 3 periods, as follows: (1) *The period of invasion*, which includes the first week after ingestion of the trichinous pork. During this period, the worms are developing in the intestinal tract, and there may be: (a) *Nausea, vomiting* and watery diarrhea. At the end of this time periodic *abdominal pains* begin to appear. (b) *Pain in the muscles*. (c) *And temporary local edema*. The embryos occur in great numbers in the serous cavities at the end of this period.

(2) *The second period or that of dissemination*, includes the *second* week. (a) *Myositis*, shown by extreme muscular tenderness, is the predominant feature of this period. The muscles of mastication, speech and respiration may be involved. (b) *Temperature* may range to 104° or 105°.

(3) *The third period, or that of encystment*, is marked by (a) *cachexia and edema of the face*. In extreme cases there may be delirium.

All the above symptoms either gradually subside or death occurs. The *blood* may show an eosinophilia of 50% or more, a marked leukocytosis—over 30,000—is usually present.

The pathology of the disease consists chiefly of a general myositis. Following the invasion of a muscle fiber, by the small worm, the cross striations for the most part disappear and the nuclei become enlarged and appear to multiply. In the course of 2 or 3 weeks after onset of the disease, the invaded muscle fibers become spindle-shaped about the worm, which at this time is beginning to become definitely coiled. The capsule within which the worm is eventually encysted encloses the remains of the degenerated muscle fiber. Inflammatory changes occur in adjoining muscle fibers which have not been invaded. Calcification of the cysts may be the final result. Practically no

immunity is conferred by an attack of trichiniasis. Second or even third attacks have been recorded.

Treatment: There is no known method by which the parasite may be destroyed, either in the alimentary tract or in the tissues. The treatment, therefore, should be supporting in character.

The disease may be confused with: (1) Acute arthritis. (2) Acute nephritis. (3) Typhoid fever.

Positive diagnosis, of course, is made by finding the larvae in a bit of excised muscle; however, trichinosis should be suspected in a case of prolonged fever, tenderness of muscles and eosinophilia.

A FEW CASES OF FACIAL PARALYSIS*

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Examination of a few cases of facial paralysis will show the importance of a sound anatomic basis for the differential diagnosis of small, or early, central and midbrain lesions from peripheral lesions and from each other. The seventh nerve was selected because of the common and striking symptom, facial paralysis. A slight muscular atony, or weakness of the muscles of the lower or upper face, must not be overlooked, however, as this may give important diagnostic leads.

The facial nerve arises from a nucleus situated laterally in the anterior field of the reticular formation of the lower pons, dorsal to the superior olive and between the root fibers of the abducens nerve, and the laterally placed spinal tract of the trigeminus. The facial nucleus is divided into definite but closely associated groups of cells which give origin to the terminal branches of the nerve. There are no cells in the abducens or other nuclei which contribute fibers to the facial nerve.

The nucleus is associated with the lower,

third motor cortical center of the central convolution, the rolandic center for the inferior, and the frontal lobe for the superior, terminal division (Landonzy and Grasset); the superior branch having double rolandic and gyrus control from both hemispheres (Joanny Roux). The motor fibers traverse the corona radiata, internal capsule, crus cerebri, pass into the pons and leave the motor tract in the pons to pass backward in the raphe; the fibers partially decussating with those of the opposite side and ending in the nucleus.

Lesions in the course of this tract arrest voluntary movements of the face but do not suspend reflex acts. Paralysis in these lesions is less complete, the eye can be better closed, and the forehead commonly escapes. The facial nucleus is also closely associated with the nuclei of the cranial nerves by association fibers. The oculomotor nucleus sends one distinct branch and also sends some fibers directly into the nerve trunk. These form an anatomic basis for the reflex acts in which the head and face take part. Thus, in the acts of winking and breathing, in motions of light, sound, taste and smell, as well as in various bodily sensations, changes in facial expression so constantly seen are automatic. Mental states are also reflected in the face unconsciously, and this is secured by intimate association of the facial nuclei and centers in the optic thalamus. Any disease in the pons, such as hemorrhage, softening, sclerosis or tumor will suspend these reflex acts (emotional facial).

The fibers emanating from the nucleus run first in a dorsal direction and loop around the nucleus of the abducens, making a prominence in the floor of the fourth ventricle—the facial colliculus. The fibers then turn in a ventral direction and issue from the brain stem at the posterior border of the pons, in front and toward the side of the olivary body. Between the point of departure and that of the acoustic nerve, Wrisberg's intermediary nerve (glossopalatine) makes its appearance, running in a peripheral direction with the facial nerve, and later making the transition to the chorda tympani.

The facial, intermediary and acoustic nerves together, turn in an anterior lateral direction and enter the internal acoustic meatus; in this

* (Read at the 165th Annual Meeting of the Medical Society of New Jersey, Section of Ophthalmology, Otology and Rhinology, Asbury Park, June 5, 1931.)

part of their course they are surrounded by continuations of the cerebral meninges. It is here that the face is involved in cerebello-pontine angle tumors, syphilis and meningitis

In the deep portion of the internal auditory canal the facial nerve separates from the acoustic and enters the facial canal; it first runs in a directly anterior direction as far as the

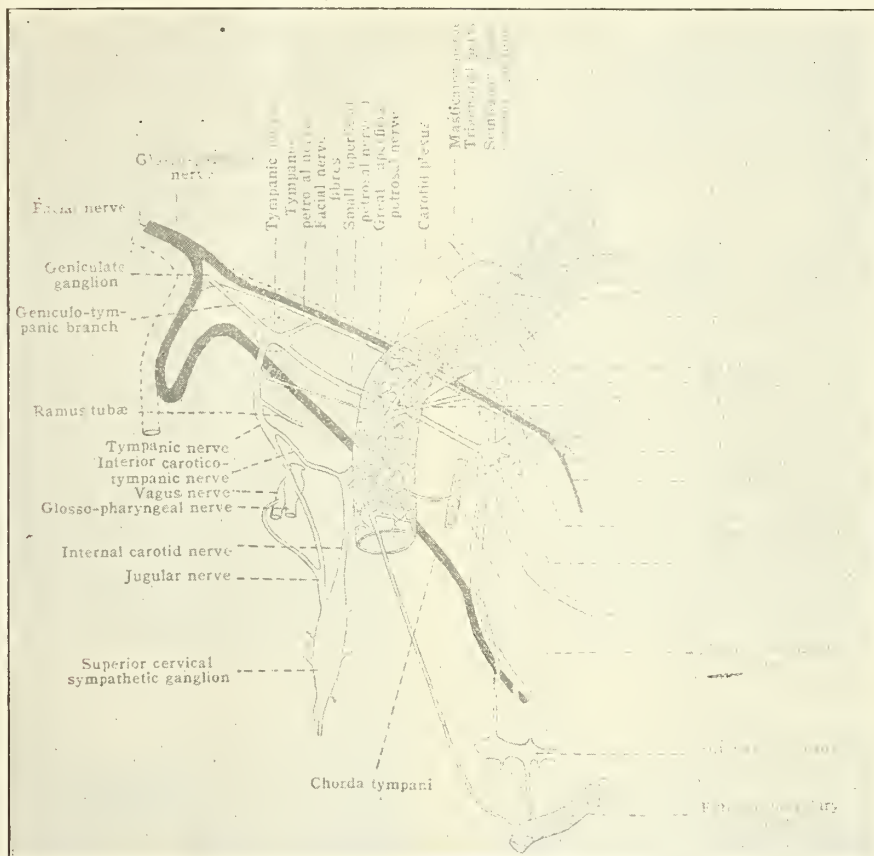
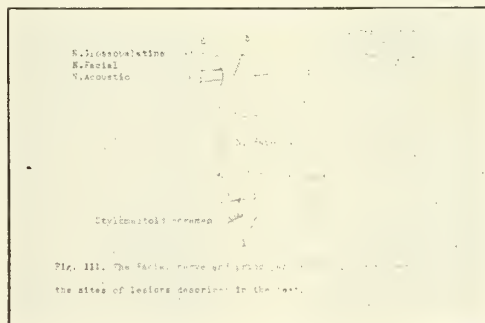


Diagram of the glosso-palatine nerve (black) and the relations of the gangliated cephalic plexus to other cranial nerves. (After Bean.) Broken lines, motor; continuous lines, sympathetic; glosso-palatine in solid black. Medial view. Left side.



or injuries in some fractures of the base. In tumors, the acoustic is usually involved, and if the tumor grows forward, the trigeminal is next involved; if backward, the glossopharyngeal and vagus.

region of the hiatus of the fallopian canal, from which direction it turns in a knee-like formation (external genu) backward over the upper wall of the tympanic cavity; after this, it curves gently downward in a somewhat lat-

eral direction to the stylomastoid foramen. At the geniculum of the facial nerve there is a triangular distinct thickening; viz., the geniculate ganglion. In this ganglion is embedded the intermediate nerve, in the fashion of a spinal ganglion and similar to a posterior root ganglion of a spinal nerve. The centrally directed processes of the geniculate ganglion enter the basal plate and the glossopharyngeal nucleus and form part of the solitary tract.

The nerve has a sensory and a motor portion. The sensory is larger and is distributed to the epithelium of the soft palate, pillars and anterior two-thirds of tongue (Tash). There

(b) Anastomotic branch, to tympanic plexus. (Small superficial petrosal to otic ganglion and lingual.)

(2) Branches low in facial canal.

(a) Stapedius nerve.

(b) Chorda tympani.

II. Branches after exit from stylomastoid foramen.

(1) Posterior auricular.

(2) Anastomotic branch, to glossopharyngeal.

(3) Branch to stylohyoid and digastric.

(4) Lingual branch.

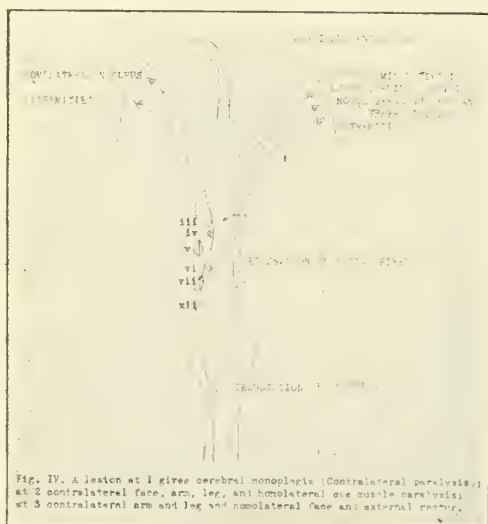


Fig. IV. A lesion at I gives cerebral monoparesis (Contralateral paralysis) at 2 contralateral face, arm, leg, and homolateral eye muscle paralysis; at 3 contralateral arm and leg and homolateral face and external rectus.

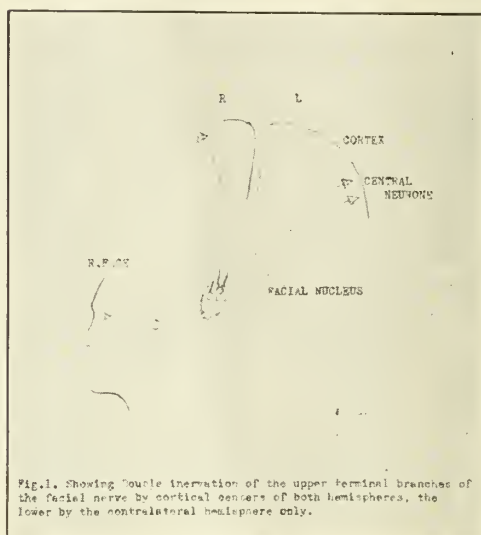


Fig. I. Showing double innervation of the upper terminal branches of the facial nerve by cortical centers of both hemispheres, the lower by the contralateral hemisphere only.

are also nerves of touch supplying the auditory canal and skin in front of the ear, so that involvement in the region of the ganglion may give pain or herpes of the external canal and face, as well as loss of taste on the same side (Hunt).

The motor portion consists, for the most part, of visceral efferent fibers, chiefly secretory. These fibers arise in the medulla at the salivatory nucleus. They terminate in the smooth muscle and vessels, and about the cells, of the glands of the lingual and palatine mucosa, and of the salivary glands proper, and in the lacrimal gland.

The facial nerve gives the following branches, grouped for easy diagnosis:

I. In the fallopian canal.

(1) Branches from ganglion region.

(a) Great superficial petrosal.

We are not concerned with the detailed distribution of the terminal branches of the facial nerve. It suffices to say that the upper division, or temperofacial, supplies the muscles of the upper face, and communicates with the orbital branch of the maxillary nerve, with the supra-orbital and lacrimal branches of the ophthalmic nerve, and with the palpebral twigs of the maxillary. The lower cervicofacial division supplies the lower facial muscles, and interlacing with the branches of the superior division, forms the infra-orbital plexus with the buccinator branch of the mandibular, with the great auricular, and the superficial cervical.

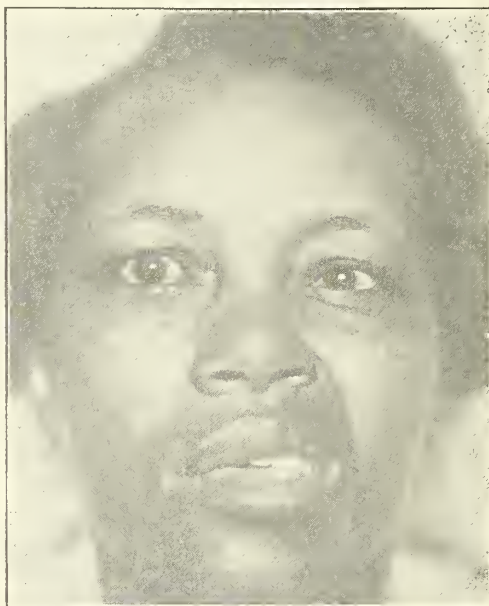
It is impossible to consider here the extensive and devious ramifications of the facial nerve and its associated geniculate ganglion, but a glimpse of Bean's diagram will give an idea of their extent (Plate I, Fig. 2).

Here is a photograph of (Case I, Plate II, Fig. 1) a man, aged 30, admitted to the Newark Eye and Ear Infirmary, September 1, 1930, in a deep coma. He was first seen at home

the family to swelling from a tooth extraction a few days before, was noted. There was a history of attacks of severe headache, staggering, dizziness and vomiting; also of one or



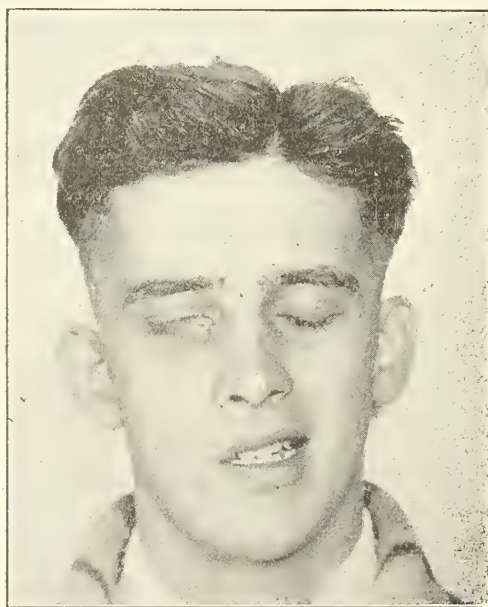
Case 1—"Supra nuclear" paralysis



Case 2—Intra pontine "nuclear" paralysis



Case 3—Peripheral paralysis, acute



Case 4—Peripheral paralysis, chronic;
17 years

earlier on the same day by Dr. William Hahn. He was totally deaf, in a chronically discharging left ear; there was no reaction to cold caloric; and a left lower facial paralysis, attributed by

more chills. Examination further disclosed a convergent squint, and weakness of the left arm and leg (motor pathway in medulla). Taste and winking reflexes are not recorded.

Presence or absence of involuntary facial changes were not noted.

A cerebellar abscess was evacuated by Dr. Hahn the same evening and the patient progressed to an apparently complete recovery. There was a lapse of memory for all events beginning the day before the operation and ending about 10 days after. The facial paralysis became greater, then rapidly cleared up, as did the squint and the weakness of the extremities. Two weeks after admission, though the lower facial paralysis was still marked, there was little tearing, and taste was normal on both sides. Winking reflex was present. There seemed to be involuntary facial changes. The patient was discharged 4 months after operation but, 2 months later, headache, staggering and vomiting returned. The facial paralysis recurred and a second operation was not so successful as the first. Necropsy 10 days later, showed scarring of a healed abscess in the left anterior cerebellum 1 cm. from the surface; nearer the midline anteriorly, there was another abscess 0.5 cm. below the cerebellar cortex.

This case I intended using as an example of supranuclear paralysis but it could be definitely differentiated from infranuclear only by persistence of normal electric excitability of the nerves and muscles. This test was not applied (Plate 1, Fig. 1). However, the paralysis of extremities and face on the same side as the lesion gives a definite indication that the nerve was affected in the pons, peripheral to the nucleus, probably by pressure, edema, or both, involving the medulla from the abscess above and posteriorly, or by direct pressure on the nerve before it entered the auditory foramen.

Case No. 2 is that of a negro woman, aged 57, complaining of awaking with severe headache and blurred vision. She had been treated for headache for several weeks before the acute onset. Examination showed a complete right facial paralysis, right rectus paralysis, and deviation of eyes to left. The uvula was also paralysed on the right side. Hearing and taste were normal. Blood pressure 220. Blood Wassermann negative.

The above symptoms are known as Foville's syndrome and are the result of destruction in

the floor of the fourth ventricle (hemorrhage in this case).

To establish an exact diagnosis of the location of lesions of the peripheral facial nerves, study of the diagram (Plate I, Fig. 3) in connection with the outline of grouped branches is helpful.

1. Case No. 3 developed a complete facial paralysis immediately following a mastoid operation. Expecting to find a lesion above the chorda tympani and stapedius, I was surprised, on examination, to find no tinnitus nor paracusis, and normal hearing, taste and palate. This placed the lesion in the nerve at the exit of or below the stylomastoid foramen. There was tearing and no alteration in salivary secretion. Questioning the operator, disclosed that an extensively diseased tip had been removed.

2. If the lesion had been in the lower fallopian canal he should have had loss of taste on anterior two-thirds of tongue and diminished salivary secretion.

3. A little higher, but still below the ganglion, there is paralysis of facial muscles, loss of taste and hyperacusis, due to stapedial lesion and the prevalence of the tensor nerve on the tympanum.

4. A lesion in the ganglion gives complete facial paralysis, loss of taste, diminished salivary secretion, hyperacusis, paralysis of the palate, pain and herpes. The lacrimal secretion is also diminished and may be the cause of serious eye complications.

5. Above the geniculate ganglion, there is paralysis of the face, diminished salivary secretion, hyperacusis, and normal taste.

6. Still higher, there is loss of hearing and labyrinthine reactions from involvement of the eighth.

7. In the cranium, these symptoms are usually accompanied by signs from the other cranial nerves.

The fourth patient tests out exactly the same as the third. He was injured 17 years before this examination; a peripheral paralysis from injury below the stylomastoid foramen.

These 2 patients need different treatment. Nerve suture should be attempted in the first; and some form of plastic operation, such as subcutaneous fascial grafts to lift the angle of

the mouth might minimize the deformity in the second.

In conclusion, I hope that this review of the subject will be helpful in drawing attention to the many types of facial paralysis, and in making differential diagnosis a little easier.

DISCUSSION

Dr. H. C. Barkhorn (Newark): I am sure we all owe a debt of gratitude to Dr. Cardwell for summarizing the facial paralyses so well, and for showing us his interesting cases. It might be well for someone to do this, over a period of years, for all the cranial nerves; we would learn something. We are all trying to get courses of instruction on neuro-anatomy, and the "Professors" come over and pad their lectures interminably, and here comes one of our own group who, in less than 20 minutes, lines up the facial nerve and its relation to disease and injuries, and charts the whole thing for us in a readily understandable picture.

AN ETIOLOGIC CONCEPTION OF THE DISEASE-ENTITY*

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The word *disease* has been so often and so variously defined that one hesitates to add yet another interpretation. If it is defined as "any departure from normal structure or function" more than one difficulty is encountered: a definition of the normal might be entailed; many more abnormal conditions might be included than are commonly comprehended in the term; and less serious degrees of abnormality might be considered disease than common sense permits. The last named difficulty can be overcome by defining disease as "any considerable departure from normal structure or function". What "normal" means can be left to the good sense of the reasonable man and the delectation of the etymologically inclined. There remains still the difficulty that a wound, a fracture, and a boil would each constitute disease. There is an instinctive shrinking from such breadth of definition. Many boils might be a disease but scarcely one boil; diffuse maladies of the skin are preëminently disease. A knife wound, one

does not naturally consider a disease, nor yet a bite by a venomous serpent. A sliver in the finger is not a disease (even by our definition) and if the sliver carries infection and produces a painful inflammation, that is not disease; but if the infection is tetanus, the result is admissible in the category of diseases proper. Gas gangrene of the leg would not be as freely called a disease.

This almost subconscious consideration of disease as something pestiferous has been traced back to the superstitions of the dark ages. Although none of us has been so taught, we still have this common attitude. To break with this tradition, there is nothing for it but to adopt some such definition as I have suggested and consider any abnormality of reasonable magnitude a disease, whether it be hare-lip or leprosy; and that is the only sort of definition which will steer us clear of the vagueness of "lesion", "condition" and "pathologic condition". It is not necessary to convince our unwilling minds; suffice it to agree upon a definition for purposes of discussion of the abnormal state.

However little practical importance attaches to the definition of disease, the conception of a disease unit, or morbidity entity, goes right to the heart of clinical medicine, and even further, as will develop. There are at the present stage of medicine 2 entirely different conceptions of a morbid entity. A disease is often, not academically but practically, considered as a piece of abnormal tissue. Although nobody goes quite so far as to point to the ballooned aorta as the actual disease capable of being measured and weighed, it is not uncommon to hear the pathologist's decision that there is no disease in the section under the microscope, and the surgeon's that he can feel no disease in the head of the pancreas. True, one may dodge the issue by referring to the absence or presence of "pathology"—or, one may have too much respect for one's mother-tongue. Goiter is not only a state of disease; it is actually a diseased thyroid or even the diseased portion of the thyroid. Here again, one is hedged about with traditional terms, but there is a generally clear conception that disease is not a tangible thing. The terms actually used in diagnosis, however, often define diseases as

* (Read at the 165th Annual Meeting of the Medical Society of New Jersey, Asbury Park, June 5, 1931.)

if they were tangible and fixed changes in structure: adherent pericardium, spastic colon, cystic kidney, even tubercle of the lung.

It is not that the diagnostic term deserves such serious consideration. It should express the clinical idea and permit the clinician to define what he considers a distinct entity. A disease is certainly not the morphologic change or functional abnormality which is present at some stage in the process. Auricular fibrillation is not a morbid entity, because it is a manifestation of a variety of pathologic processes; nor is nephritis, enteritis or ankylosis of a joint.

A disease is, then, a process, not a static condition of structure or function; and the diagnostic term should define, either by inference or explicitly, a morbid process. Tuberculosis of the lung is one definite entity, proceeding from a recognized cause, and manifesting itself generally in a constant way. Nothing more need be said in the diagnosis itself, whatever limiting terms may be required to express the stage the disease has reached at the time of the examination or the complications that have occurred in the particular case. However, a variety that presents a more or less constant group of phenomena of its own, may reasonably be considered a distinct morbid entity, such as acute pulmonary tuberculosis.

Ankylosis is the common result of a variety of processes; hence it is not a morbid entity. In discussing the varieties of talipes, Whitman makes this remark: "From the remedial standpoint, the cause of the deformity is of far greater importance than its form." There is a demand among orthopedists that the diagnosis shall be more explicit and that more attention shall be given to the process which brings about the lesion. Whitman's statement has a wide application in orthopedics and a still wider one in general medicine. It is not at all a quibble over terms; therapeutics depends upon a clear recognition of the cause even in the present stage of medicine. The development of medicine is more dependent upon clarification of etiology than upon all other factors combined. The triumphs of medicine in the last 50 years are only the climaxes of patient studies in etiology. The

future of medicine, with the increasing importance of preventive medicine, depends on further study of etiology. The inquiring mind is always seeking the cause, both direct and contributory. It may be considered a timely suggestion that diagnosis should reflect the great question that physicians have been asking since Aristotle. It is not too much to say that a diagnostic term that takes no account of cause does not define a diagnosis at all. It is a mere label, and in many cases a group term for a variety of processes.

The suggestion that an etiologic color be given to diagnostic terms does not arise primarily from an attempt to inflict something new upon physicians; it comes from a desire to give the physician an opportunity to express the distinctions which are already in his mind: to allow him to say a little more than "nephritis" for an assortment of infectional, toxic and circulatory disturbances of the kidney, or something more explicit than diabetes mellitus for the variety of processes that end in hyperglycemia; and to express in diagnostic terms the various processes that lead up to rhinitis, cervicitis or enteritis. This is the weakness of diagnostic nomenclature, a weakness that grows out of the natural conservatism of medicine. Ideas must change and knowledge grow, but we would like to hold to old terms to save the confusion of following the new. There is an astonishing number of these terms frozen into medical literature. From the days when almost all diseases had to be defined in terms of the lesion or important symptom which they produced, have come down many so-called diagnostic terms. Medicine has left the purely pathologic conception far behind, but not the term in all cases. The teaching in medical schools emphasizes the importance of the etiologic factor, but the student graduates into a hospital where the cause makes too often no impression whatever on the terms he is to use in diagnosis. He must learn the bad habit of thinking in one fashion and expressing himself in another. We teach him all the causes of enteritis and then allow, nay compel, him to diagnose acute or chronic enteritis. We teach him the necessity of comprehending the chain of events that leads up to the present illness before he can make his diagnosis or

apply intelligent treatment, and then confound him with a diagnosis that expresses merely a present inflammatory state. Fortunately, morphologic pathology is relaxing its stranglehold on clinical medicine; we no longer hear so much about catarrhal, ulcerative, membranous, hypertrophic and atrophic inflammations, and the granuloma is being relegated to pathology, where it belongs. It is true, diseases must be described in morphologic terms when there is no known etiologic factor to afford a means of distinction. One has to seek no further than pneumonia to find a group of diseases which are still classified in terms of structure. The true difference between the pneumonias is not that one is measured by the lobe and the other by the lobule or the patch, but that one is caused by the pneumococcus and the others by some other known or unknown infection. Although the distinction is carried even to the point of the type of pneumococcus, one must ignore all this when one seeks for standard diagnostic terms.

It scarcely seems fair to single out one specialty when the error is so common in medicine, but a quotation from a standard and fairly recent text on ophthalmology illustrates not only how confused diagnosis may be, but how the confusion affects actual treatment, when the diagnosis excludes etiologic considerations. The following is taken from a discussion of parenchymatous keratitis:

"The commonest cause of the disease is syphilis and especially hereditary syphilis. General treatment in those cases in which syphilis is the cause must be directed against the latter. Salvarsan, according to many, is helpful in shortening the process. Others have found it of little avail. . . . If the Pirquet or tuberculin reaction is positive, tuberculin should be tried, and this may succeed in cases which are syphilitic as well as tuberculous but in which treatment for syphilis has failed to help. In the lighter cases of parenchymatous keratitis, indeed, we may confine ourselves to a simple tonic treatment with the simultaneous employment of remedies containing iodine (cod-liver oil with iodine, iodide of iron, potassium or sodium iodides, and mineral waters containing iodine). Thyroid extract may be used with advantage in some cases. Unfortu-

nately, we must say that, in many cases, parenchymatous keratitis runs a course that is not essentially different from what would have been the case without any treatment at all."

Another text-book on this subject follows the same lines in discussing this ill-assorted group of diseases and in addition actually defines the prognosis. This is the attitude of Peter Bell:

"A lesion by his lexicon prim
A yellow lesion was to him
And it was nothing more."

The Peter Bells still maintain an objective attitude toward diagnosis. One sometimes thinks of the morphologic attitude as botanic, since the diagnosis is a description of a tangible entity. Actually, Peter Bell was a poor botanist. He knew his primrose when he saw it, but it signified nothing. He would not expect to find one at that season by the river's brim. He was not thinking in terms of soil and sunshine; he had no conception of the chain of conditions that brought the flower there at that time.

If the cabbage produced a flower like the rose, there might be some excuse for considering the two the same species so long as the stem and leaves were both buried in the ground. Once the whole plant has been laid bare it is neither good botany nor good common sense to call both a cabbage; but it is, apparently, good medicine.

It is hoped that this argument will not be construed as any justification for the neglect of pathology, in the common acceptance of the term, or any reason for ignoring the exact tissue changes which the disease has produced even when its cause and nature are clearly known. The clinical conception of disease properly begins at the cause, but it includes every manifestation of the process up to the final stage when the structural, functional or chemical environment is so adverse that life is impossible. It is not with morphology that clinical medicine has any quarrel, and the frequent coolness between them is regretted by every true clinician. Rather is it the point that morphology is only a part of clinical medicine although a necessary part of the whole.

Some of those who have fostered the present move away from morphologic pathology would

put medicine in another compartment no more capable of containing it. Physiologic pathology provides only another view of medicine, and there has so far been nothing to show that a view of one side is any more salutary than a view of the other. If the pathologists expected to reveal disease in the postmortem room, the physiologists expect to demonstrate it in a test-tube. The pure physiologist is just as incapable of grasping the three-dimensional nature of disease as the uncontaminated pathologist. In spite of the defeatists' assertions to the contrary, it is decidedly within the possibilities of any intelligent physician to master enough of pathology and physiology to view medicine stereoscopically.

There is no disputing, and no wish to dispute, the fact that physiology and chemistry have wonderfully illuminated the dark places of medicine. All physiology and chemistry, however, must be brought right home to the cell. The reaction in the test-tube only suggests what may happen in the living laboratory, and it is only when structural alteration can be correlated with functional change that the pieces of the clinical picture can be satisfactorily fitted together. Diabetes mellitus is a case in point. The physiologist will demonstrate the evidence of dysfunction of the insular tissue; but the pathologist cannot always justify that conclusion histologically. He will insist that the pancreas is not diseased when he can demonstrate no abnormal cell. He may betray too great a reliance upon his stains and his microscope, for a cell may die without a change of countenance, and only the physiologist can hear its sigh. Still it is difficult to accept functional ablation when there is histologically not a scratch. The pancreas, however, is far from being the only organ to manifest functional disturbance without structural change. While not disputing the physiologist's assertion that the insular tissue is diseased, it is difficult to consider the disease the same as that associated with structural change. It is known that hyperglycemia can be produced quite apart from any lesion in the pancreas, and, theoretically at least, one tolerates the consideration of diabetes mellitus as a single entity only because of the confusion. The difficulty at least illustrates how analogous the

purely physiologic attitude is to the purely anatomic, and how little more justification there may be for the entity diabetes mellitus than for sclerosing keratitis.

It is the result of superficial thinking to consider 2 diseases identical because they result in the same structural or functional abnormality; but the fallacy is inevitable unless disease is considered as a process, a continuous chain of related events proceeding from some cause, known or unknown. Hence the analysis of a morbid state according to etiology provides the only logical method of segregating each morbid entity. Even when this argument is admitted, one's habit of thought often prompts one to protest that an inflammation is an inflammation no matter what the cause, and a sinus a sinus or an ankylosis an ankylosis. The protest seems particularly valid when the method of treatment is the same in each case. A so-called chemical "burn" may produce much the same structural change as a burn by hot liquid, but the early treatment may be entirely different and preventive medicine recognizes a fundamental difference. In the present state of medicine there may be only one form of treatment for all the different diseases constituting one of these nomenclature diagnoses; but, without the vision of improvement in therapeutics, medicine would be indeed dead.

It has been suggested that an etiologic system of diagnostic terms would make the physician think. It would do more than that: it would permit him to think and to express the result of that thought in significant terms. The diagnosis should be the summation of the clinical study. If it is comprehended in a meaningless term, or a group conception, the whole process of diagnosis is stultified; and the practice of using labels to smother intelligent conceptions will react upon the keenness of diagnosis until the process will become as perfunctory as its verbal expression. The etiologic classification, on the other hand, permits the discriminating analysis of the case to be carried right into the selection of the term which expresses the morbid process.

There is no suggestion that diagnostic terms should be materially changed: that would lead to confusion; but they can be amplified to in-

dicating the process as well as the end-result. Instead of the morphologic term *aneurysm*, the diagnosis could be aneurysm due to infection (or to a specified infection), traumatic aneurysm, or atherosclerotic aneurysm. Infectious nasopharyngitis could be distinguished from that produced by poisonous gases, tobacco or dust.

After all, one determines these things. If one could invoke Osler's diagnosis in the terms in common use, not even his most ardent admirer could get along without something more specific in very many cases. The diagnosis should be at least explicit enough to suggest the general lines of intelligent treatment; and this many current diagnoses are not.

This whole argument presupposes that an etiologic diagnosis is possible in every disease. It has generally been considered impossible to classify diseases etiologically because the cause of many diseases is unknown. That is precisely what the first etiologic distinction expresses: (1) diseases of known cause, and (2) diseases of unknown cause. The very fact that the cause is unknown places a disease, nosologically and therapeutically, in an entirely different category from those whose cause is known. Peptic ulcer is, so far as our present knowledge goes, fundamentally different from typhoidal ulcer or varicose ulcer; but typhoidal ulcer, syphilitic ulcer and amebic ulcer are etiologically much alike, although still entirely different from varicose ulcer.

Considering the organ or tissue which presents the disease, the causes of abnormal structure or function may be classified more particularly. The known causes (congenital factors, infection, poison and trauma) need no explanation. When the cause is unknown, one must resort to the morphologic or physiologic processes which characterize the morbid state, and preferably the former because of their greater constancy. It is not to be supposed that the classification here reverts to the anatomic: no disease is to be classified primarily according to the ulcerative, inflammatory or degenerative reaction which characterizes it, but primarily because its cause is known or unknown. Hence, morphologic distinctions are quite subordinated to the etiologic throughout.

Besides the known specific causes of disease, there are several mechanisms which may produce disease. If for some reason a tissue is not properly nourished (whether through too little or too much blood or lymph, or through abnormal blood) it may not maintain its normal structure or function. So far as the tissue itself is concerned, in such cases, that is the only reason for its disease. We cannot diagnose syphilis of the myocardium when a coronary artery and not the myocardium is the site of infection; but we can define a disease of the myocardium dependent on the disturbed circulation. It is disturbance of circulation which causes varicose ulcer gangrene after section of an artery, and many diseases of organs.

Another closely related cause of disease is interference with the nerve supply. After poliomyelitis has disappeared and the lesion has healed, disease in a muscle persists: it can neither function nor receive proper nutrition. Other functions than motor may be affected, and organs manifest a variety of diseases, probably more than we yet realize, because they are not normally innervated.

Again, an organ may be diseased because it is obstructed or because it is distorted or displaced for no clearly defined reason. These gross abnormalities, not dependent on any histologic alteration or indicative of any progressive reaction to any unknown noxa, have been grouped under the none too clear title of "static mechanic abnormalities." If the altered structure is due to prenatal influences, to infection or trauma, the disease is so classified, for the reason already indicated, that the "static mechanic abnormality" is only a subordinate title to "cause unknown".

Proceeding yet further with the unknown causes of disease, one encounters a group in which the abnormality of the organ depends on some interference with the mechanism which regulates its metabolism. Further than that the cause is unknown. Here belong diseases of specific organs or tissues due to disturbance of endocrine function or to lack of vitamins, as well as certain diseases in which the tissue (bone, for example) fails in its metabolic functions for no known reason.

There are 2 groups of diseases of unknown

cause which are characterized by distinct types of histologic reaction to some abnormal stimulus or noxa: the new growths in the one group, and the inflammatory, sclerotic or degenerative diseases, in the other. The first group needs no further definition, although the distinction is not always easy. In the second group are clearly such diseases as peptic ulcer, acute and chronic inflammation of unknown cause, and idiopathic degeneration of nerve tissue.

Finally, there is a group of diseases in which there is no other evidence of the morbid process than disturbance of function. Here the physiologist commands the field; indeed, nobody else is allowed in it; the pure pathologist of the last generation either scorned to enter it or protested mightily when he had no other choice. Even today, one still hears a pathologist declare that there is "no disease" in the brain in dementia precox, or the stomach in some cases of achlorhydria. These diseases, and many more, still remain in that group defined in the last category.

It is thought that these 11 categories (Table 1) define all diseases etiologically. For purposes of clear definition of diseases, however, it is not sufficient to define the cause and nature of each. Tuberculosis is not a disease-entity, because tuberculosis of the meninges is a very different disease, clinically, therapeutically and prognostically, from tuberculosis of the skin. Each disease mechanism must be assigned to the organ or tissue where it is entirely or principally manifested. Table 2 shows a familiar method of grouping the sites of disease, beginning with the body generally (for such diseases as miliary tuberculosis and multiple injuries) and continuing through the various systems.

TABLE I.
(Etiologic Categories.)

0	Diseases* due to prenatal influences.
1	Diseases due to lower plant and animal parasites.
2	Diseases due to higher plant and animal parasites.
3	Diseases due to intoxication.
4	Diseases due to trauma or physical agents.
5.0	Diseases due to circulatory disturbances.
5.5	Diseases due to disturbances of innervation or of psychic control.

*In the sense of departure from the normal structure or function.

6	Diseases due to or consisting of static mechanical abnormality (obstruction, calculus, displacement and gross changes in form, etc., due to unknown cause).
7	Diseases due to disorders of metabolism, growth or nutrition.
8	New growths.
9	Diseases due to unknown or uncertain causes, the structural reaction (degenerative, infiltrative, inflammatory, proliferative, sclerotic or reparative) to which is manifest; hereditary and familial diseases of this nature.
x	Diseases due to unknown or uncertain causes, the functional reaction to which is alone manifest; hereditary and familial diseases of this nature.

TABLE II.
(Sites of Disease.)

0	Diseases of the body as a whole (including diseases of the psyche, and of the body generally); and those not affecting a particular system exclusively.
1	Diseases of the integumentary system (including the subcutaneous areolar tissue and breast).
2	Diseases of the musculo-skeletal system (bones, joints, bursas, ligaments, muscles, tendons and fascia).
3	Diseases of the respiratory system.
4	Diseases of the cardiovascular system.
5	Diseases of the hemic and lymphatic systems.
6	Diseases of the digestive system.
7	Diseases of the urogenital system.
8	Diseases of the endocrine system.
9	Diseases of the nervous system.
x	Diseases of the organs of special sense.

These 2 tables show only the main groups of causes and sites. Division and subdivision of each provide specific causes or mechanisms and discrete sites for each disease. From infection of the respiratory system, the particularization of cause and site carries the diagnosis to tuberculosis of the lung, pneumococcic infection of a sinus, or syphilis of the nose, as the case may be. Provision is made for both unspecified and unknown infections, so that the diagnosis of acute maxillary sinusitis, or of measles, is not rendered impossible to record.

This is not intended as anything more than an attempt to set forth the philosophy of the etiologic method of diagnosis, and a sketch presentation of the method, based upon the philosophy which the National Committee on Nomenclature of Disease has adopted for the classified nomenclature which is now approaching completion. It may be said, however, that the National Conference, composed of representatives from the national clinical societies and various statistical organizations and federal governmental bureaus, and working in coöperation with committees from these

bodies, expects to bring the completed nomenclature to the various organizations which sponsor it, and through them to introduce it as a national standard for use in all hospitals, big and small, and by all practitioners in the country.

The pessimist is always ready with the warning that the busy general practitioner will have no use for a scientific nomenclature and that it will be used only by the scientific men in the larger hospitals. The general practitioner is much maligned. My own experience has given me no reason to share the belief that the scientific mind is the exclusive possession of the specialist and research worker. I have never yet failed to find an interesting and often stimulating scientific trend in a physician, no matter how much it was obscured by the "business" of practice. True, many men ask themselves absurd questions and satisfy themselves with absurder answers, but the physician without the inquiring mind is so rare that I have never encountered one. The tragedy of the situation and the cause of much, if not all, of the unethical practice, lies just in this strangling of the searching spirit by force of circumstances, isolation, and the discouraging conviction that without a test-tube and a stained gown research is impossible. It must be true that many a born scientist has been caught in economic toils from which he has not sufficient courage and business sense to break free. It is to these thousands that this nomenclature should appeal. I like to think of the rural practitioners contributing their share in clinical research. The leaders of medical research are just now pausing to observe that clinical research is the most neglected side of medicine; and clinical research will never be ideal until it embraces the clinical experience of the whole country. Who can say what the effect of urban life is on any disease unless there are reliable statistics for making comparisons with rural conditions? If we can all, rural and urban, scientific and empiric, express in identical terms the morbid process which led up to the present illness, we shall then be one great brotherhood of clinical research. True, all will make mistakes, and the careless and hasty practitioner will make more than the close observer; but we shall all be in the ranks of

advancing medicine, and not mere camp followers.

It is a common belief that the Pasteurs and Oslers are gifts from the gods. It is more stimulating to believe that the great man is the response to the great demand. The middle ages were dark, not because the great were less great, but because they received no stimulus from the mass of men. Each physician who asks of himself a question becomes part of the inarticulate demand for an answer. From a whisper the question swells to a great clamor and the answer must be evoked. It is not his fellow-workers who urge the great scientist on to his greatest achievement; it is the call of his fellow practitioners. It is to give fuller expression and coherence to the great inquiring mind of medicine, that this plan has been adopted of setting out for the use of all one common method of expressing the certainties and uncertainties of diagnostic medicine.

GRANULOCYTOPENIA WITH NECROTIC MOUTH AND THROAT LESIONS FOLLOWING NEOARSPHENAMINE ADMINISTRATION

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and

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The following case is presented to show the reaction occasionally occurring after anti-syphilitic treatment, and to show its similarity to so-called agranulocytic angina.

K. C., age 29, white female, married, American born, housewife. Father died of cerebral hemorrhage. Mother, 4 sisters and 4 brothers living and well; 1 brother died of pneumonia; first husband died; 1 son living and well; 3 miscarriages by first husband; second husband living and well; no pregnancies; no history of carcinoma, tuberculosis, diabetes or insanity in the family. Her own general health was good; had measles and pertussis in childhood, but no other illnesses. Occasional headaches.

In 1930, she was found to have a secondary luetic rash and was given 4 injections of arspenamine.

A few days after the last injection, and 5 days prior to admission to Newark City Hospital, her illness began with a sore mouth. On April 4, the fifth day of illness, she was admitted to Essex County Isolation Hospital with a diagnosis of Vincent's angina. Two smears from the necrotic ulcers of the mouth revealed no Vincent's organisms. Later, a few spirilla and fusiform bacilli were found. On admission, she complained of sore mouth, general malaise, difficulty in opening mouth and dysphagia. The gums were swollen and covered with a grayish, filmy exudate. On the buccal mucous membrane, opposite the right upper tricuspid and extending up on the anterior pillar of the right tonsil, there was a dirty grayish membrane of leathery consistency, 3x3.5 cm. in size. The right tonsil was enlarged and protruding, but free from membrane. The right side of the face was swollen, and there was a large, painful gland at the angle of the right mandible. Other palpable nodes were present in the cervical and left axillary regions. There was slight, definite jaundice. The heart and lungs were negative. The liver and spleen were not palpably enlarged. No petechial spots were found.

Her condition become progressively worse. Jaundice increased, afternoon temperature remained high, 104° to 105.5°; prostration pronounced. She developed a similar necrotic area opposite the last left upper molar, 1.5 cm. in diameter, and one the same size posterior to the left upper lateral incisor.

On the thirteenth day in the hospital and

the eighteenth day of her illness, when she was at her worst, having developed some edema of the extremities, incontinence of urine, and being irrational at times, she was given 250 c. c. blood, by direct method, from her sister. Following this, her condition immediately improved and her leukocytes arose with a fall in temperature. Two days later, she was given a second transfusion of 125 c. c. from the same donor, and from this time improved steadily until her discharge, 15 days later. Five days after the second transfusion, the necrotic substance began to slough out, leaving a healthy-looking base, the excavations being 1 cm. deep in the center with the slough all removed. Patient was allowed out of bed on the thirtieth day of illness and discharged 3 days later.

On discharge, she had been free from fever for 1 week, the jaundice was about gone, the excavations of the mouth were filling in, and the white count was nearly normal. There was a moderate, secondary anemia. Several teeth were quite loose, and a radiograph showed some apical abscesses which might account for the anemia.

Temperature fluctuated from 99.6° to 105.2° until April 18 when it dropped by lysis to normal on April 24. Pulse fluctuated between 100 and 146 until April 18 and fell gradually to normal on April 24. When seen at her home on May 15, patient seemed quite well.

Discussion. In the light of retrospect, agranulocytic angina seems first to have been described by Turk, 15 years before Schultz aroused the attention of the medical profession to this condition. Friedemann, later, named this condition agranulocytic angina. Schultz, who believed this condition to be a

CASE REPORT

Date	R.B.C.	H.B.	W.B.C.	Polys	Lymphs	Mono- cytes	Eosin- ophils	Baso- phils	Myelo- cytes	Acromia	Anicocytosis	Shift to Left
4/5			5600	1%	57%	39%	2%	1%		Slight		
4/7	3,890,000		5600	0	48%	42%	10%					
4/11			5400	3%	39%	55%	3%			Marked		
4/11	2,700,000		3500	2%	33%	59%	4%	1%		Slight		
4/15			6500	2%	48%	46%	3%	1%				
4/16			3700	1%	44%	45%	9%	1%		Moderate	Marked	Marked
4/18		10,900		43%	30%	15%	3%		9%	Moderate	Slight	Moderate
4/18			11,200	63%	12%	15%	1%		9%	Slight	Slight	
4/21			33,000	78%	14%	1%			9%	Slight	Slight	Moderate
4/23			29,000	67%	22%	4%	1%	2%		Moderate	Marked	
4/26	1,720,000	33	11,500	72%	20%	5%	1%		2%	Moderate	Slight	
4/29	2,770,000	50	12,900	74%	19%	4%	1%	1%				
5/15	3,610,000	65	13,300	63%	32%	2%	3%					

definite, clinical entity, described it as a disease occurring in middle-aged women, characterized by an acute onset with fever, a necrotic throat infection, regional lymph-node enlargement, slight jaundice, and a rapidly fatal termination.

Schultz and Jacobowitz have described the blood picture as follows: "Extreme decrease of the leukocyte count, generally to a few hundred, sometimes the polymorphonuclear leukocytes and eosinophiles are decreased to zero, while lymphocytes and monocytes dominate the white cell picture; there are no specific pathologic blood cells. The red blood picture is very little changed. All the cases ended in death."

Since Schultz's paper was published, more than 150 other cases have been recorded. However, a very large number of these vary more or less radically from the original description, in their clinical and laboratory findings, so that in reading the reports, it seems doubtful whether it is right to classify some of them as instances of the disease originally described.

In the most typical cases so far reported the symptoms were about as follows: Ulceration and necrosis of mouth, throat, or both, and a high fever, and marked prostration occurred in most cases. Jaundice was present in about 50% of the cases. In some, the liver and spleen were enlarged. Rarely was a hemorrhagic diathesis present. In practically all, a marked leukopenia and diminution of the granulocytes were present. In many, a total absence of the granulocytes occurred.

As one reviews the literature, it becomes readily apparent that conditions exist showing an extremely close resemblance to agranulocytic angina, but which make one skeptical about applying this name to them as a definite clinical entity. It is true they show many striking points of resemblance, but also definite variations. This has led writers to use such terms as agranulocytosis, granulocytopenia, malignant leukopenia, mucositis necroticans, agranulocytica and lymphatic reaction.

Kastlin, in 1927, reported 2 of his own cases and their autopsy findings, and collected 43 cases from the literature. Of these, 34 were females and 9 males. Three recoveries were reported in this series. Dwyer and Helwig report an interesting case with the autopsy find-

ings in a 6 year old boy, showing, on admission to the hospital, the Mikulicz syndrome. Buck reports a case of agranulocytosis occurring with an anal ulcer. Marrow, removed during life, showed "myelocytes and myeloblasts". This case also showed an 18,000 platelet count and an extremely low red blood count and hemoglobin percentage.

Hutcheson reported 5 cases with 2 recoveries. One of these recoveries had a second attack about 2 months later, which terminated fatally. One of the fatal cases showed no throat symptoms, but had an anal ulcer.

Blumer points out an interesting reaction on the part of the bone marrow and calls attention to the fact that "local and general sepsis, not affecting primarily the skin or mucous membranes, may be accompanied by a leukopenia and an agranulocytic blood picture". He believes it impossible during life to differentiate between the so-called acute aleukemic lymphatic leukemia and sepsis with agranulocytosis.

Blanton reports a case of agranulocytosis with recovery, in which the patient showed a staphylococcus infection of the neck, but no sloughing nor ulceration of the tonsils. The polys. were never below 4%.

In March, 1930, Gordon reported 4 cases and made an extensive survey of the literature. He gives a bibliography of 79 papers on the subject.

Roberts and Kracke report a very interesting case in a woman 72 years of age, followed by them through 2 attacks of this disease. From their observations of this case, they found a reduction of the granulocytes in the blood to 10%, 4 days before clinical evidence of the second attack, and a total absence 2 days before. They believe the disease has 3 onsets, a marrow onset, a blood stream onset, and a clinical onset. They recovered a streptococcus hemolyticus from the blood stream, the embolic abscesses, and the stools, and believe they have given evidence that the marrow stops making granulocytes some days before development of the sepsis and that the loss of immunity conferred by the leukocytes of the polymorphonuclear group, renders infection easy by any bacteria present in the digestive tract.

The etiology of this condition is still unknown. Many causes have been suggested. Vincent's organism has been frequently found in the mouth and throat. Many varieties of bacteria have been found in the blood. They are for the most part types of staphylococci and streptococci. Lovett found *Bacillus pyocyaneus* in the throat of 1 patient. Injecting this organism into rabbits caused a lowering of the granulocyte count. The rôle played by the arsphenamines in producing this picture will be emphasized later.

There is one thing that seems fairly well established. Some toxic agent acts upon the granulopoietic mechanism, injuring or completely paralyzing it, and producing the agranulocytic picture. That any one of a variety of toxic agents may produce this condition, also seems true.

At autopsy, some have shown liquid bone marrow, varying from straw-colored to intense red. There is a definite paucity to absence of the granulocytes, a definite granulocytic aplasia. Many plasma cells and lymphocytes are present. Kastlin reported a case with endothelial hyperplasia or lymph nodes, spleen and bone marrow. In most cases, ulcerations were found in the oral cavity, but frequently other parts of the digestive tract were involved. The characteristic thing about these ulcerations was the absence of the inflammatory cell reaction at the border of the necrotic area.

It seems to be the opinion of the majority of writers at present, that we are dealing, as Clough has stated, "with a group of diseases, rather than a single disease". Roberts and Kracke, in the report previously mentioned, believed it probably "a specific disease entity with the primary, pathologic condition in the bone marrow". Their group of diseases of the agranulocytic series is worthy of quotation, for they cover fairly well the cases so far reported. They are as follows:

(1) Agranulocytic states due to chemical poisons, as benzene or arsenic. Agranulotoxicosis.

(2) Agranulocytic states due to irradiation, as after radium and x-rays. Agranuloradiation.

(3) Agranulocytic states due to bacterial infection. Agranulosepsis.

(4) Agranulocytosis, a disease entity, in which an unknown cause results in marrow, blood and clinical onsets in the order named, characterized by single or recurrent, acute attacks.

(5) Aplastic anemia, with or without acute, terminal infection.

(6) Pernicious anemia, terminal state.

(7) Acute aleukemic lymphatic leukemia with or without acute, terminal infection.

(8) Bizarre anemias and bizarre proportions of the lymphocytes and monocytes.

(9) Roseola infantilis.

(10) Acute, infectious diseases associated with, or followed by, leucopenia and rarely near agranulocytic states—typhus, typhoid, measles, mumps, malaria, influenza, dengue, Egyptian splenomegaly and certain pneumonias.

The rôle that chemical poisons have played in the production of the agranulocytic state has been stressed by many writers in recent years. Arsenic, usually in the arsphenamines, has been the most emphasized offender. Dodd and Wilkinson reported a case of agranulocytosis in a colored girl, 11 years of age, following 4 injections of sulpharsphenamine. The throat became so swollen, it resembled a peritonsillar abscess. The temperature was 105° and the child died on the tenth day after the last injection. The polymorphonuclear leukocytes entirely disappeared from the blood stream. Autopsy showed "almost complete aplasia of the bone marrow, affecting especially the myeloblastic cells". Summaries of 23 other cases of similar reactions to the arsphenamines are given; 13 of these 23 cases were fatal. Autopsies in all the cases reviewed—in all 9 cases—showed, uniformly, a marked aplasia of the bone marrow and almost complete disappearance of the granulocytic series. These authors bring out the fact that the arsphenamines contain a double benzene ring, and that benzene is a fairly well-known depressant of the bone marrow. However, relatively few people show such a reaction to the arsphenamines, while all persons react to benzene. They state that no similar case of bone marrow

aplasia could be found after receiving arsenic in other forms.

In June, 1928, Wheelihan reported what he believed to be the first case on record, of a granulocytic aplasia due to inorganic arsenic. This occurred in a girl, 9 years of age, who received over a period of 30 days, 625 minims of potassium arsenite. The leukocytes dropped to 1300 and the polymorphonuclears to 3%.

Farley, under the title "Depressed Bone Marrow Function From the Arsphenamines," reports 7 cases and found records of 39 cases; 23 of these died, and 16 recovered. He states that the cases reported belong to the group of symptomatic blood dyscrasias, and that the clinical pictures depended on how much depressed and what particular elements of the bone marrow were affected. He advocates transfusions as a therapeutic measure, and advises blood counts to check up on the patient's reaction, and to withhold treatment with arsenic for a long period following signs of bone marrow depression.

Charles P. Wilson reported a case following antisyphilitic treatment in a colored female, 24 years of age, which showed a marked similarity to the case here reported. His patient received 3 injections of neoarsphenamine, intravenously, and 1 of sulpharsphenamine intramuscularly. The patient became ill with sore throat 6 days after the sulpharsphenamine injection. There was a moderate, generalized adenopathy, swelling of the eyelids, and an exudate on the tonsils. A moderate, secondary anemia was present. There was a moderate leukopenia, but the differential count at one time showed a complete absence of the polymorphonuclear group of cells. However, there appeared a stimulation of another kind of cell, the monocyte, the origin and nature of which has been the matter of much discussion among hematologists of recent years. In our case, it may be seen, that the monocytes formed as high as 59% of the leukocytes. The leukopenia, while definite, was not nearly so marked as in many of the reported cases.

SUMMARY

The case presented adds another to the increasing number of reported cases of reaction to antisyphilitic treatment. A review of some of the literature on agranulocytic angina and

closely allied conditions, has been made, and we believe that a number of causes produce a very similar clinical and blood picture, and furthermore, that arsenic, especially in the form of the arsphenamines, may produce a picture almost identical with the so-called agranulocytic angina. It is interesting to note that clinically, and from the laboratory reports, improvement in our case immediately followed the first transfusion.

We wish to express our thanks to Dr. M. J. Fine, pathologist to the Mountainside Hospital, for helpful suggestions; and to the Laboratory of Mountainside for performing some of the special tests.

BUILDING TOGETHER*

WESLEY J. BARRETT, M.D., F.A.C.S.

The thought of *edification*, with its complement, *delectation*, has revolved so unceasingly in my mind during the past year that I have chosen to express myself at this annual meeting on the subject of "building together". So much of self-consideration has rotated in my imagination that I have found it difficult to refrain from the *ego* in my essay.

Now, I may have aroused your curiosity as to why this *ego* tends to intrude into my meditation. The fact is that there has been much of novelty in the affairs of the Camden County Medical Society during this fiscal year, and whether you account it as presumptuous, boastful, or as I ventured to suggest in my opening paragraph, as egotistic, that novelty has centered about your humble servant. Being immediately fearful that I have created in your mind the idea that I am so well satisfied with myself, I hasten to gouge out, to erase, yes, to dissipate such an erroneous opinion.

Many persons, even some doctors, are able to lay claim to superiority in one or more pursuits or achievements. We envy the person who is *first* in any accomplishment. To come to myself again, I have seldom, if ever, figured *first* in anything, not even in the hands of the

* (Presidential address to the Camden County Medical Society, October 1931.)

city police. Certainly, I could never figure first in a beauty pageant, nor excel in a mental test, nor win out in an athletic stunt, nor merit a prize for an act of heroism, and never exhibited any profundity in any of the medical branches; but why multiply such instances, as it has never been my privilege or satisfaction to be first in anything, except that I am the *first of my school* to be President of the Camden County Medical Society. So, now the truth is out! Here my excuse for the ego—the premise for my delectation, the occasion for my self-connived laudation.

I had hoped that in my day I might see the partisan line between the cults of medicine erased, and that all men essaying to treat the sick, under whatever banner they might be registered, would come to a plane of unification and all join in a procession to elevate that standard of therapy that is based on very creditable learning, established scientific facts, and a willingness to accept the tenets of truth regardless of the source from which they may have been discovered.

I presume it has occurred to our minds that the title M.D., or Practitioner of Medicine, is more traditional than in accordance with modern concepts. Don't think I am subscribing myself to therapeutic nihilism or holding a brief for any of the cults that propose to treat, by adjustment, suggestion or Deistic intercession. But is it not a fact that the medical fraternity has departed far from the ideas enjoined by the Hippocratic Oath? Imagine how much the activities of some of our good fellows would be abbreviated if it were regarded as unethical or undignified to cut a man suffering from stone, or any cutting such as is so frequently done now. Mecray, Lipincott, Lee or Hadley would not be so highly enthroned.

Certainly, specialism has lessened our dependence upon medication *per se*. We rail at legislators who argue to license irregular practitioners whose training is not in accord with present-day standards or modern learning, because they do not use drugs in the treatment of the sick. Antipathies once engendered and set going are hard to dissipate or terminate. Sometimes there is a real bone of contention, or perchance just a spirit of diabolic cussedness

which tends to embroil individuals, organizations or political bodies into controversy. Why is a dog ever at enmity with a cat? The biologist may tell us that somewhere back in the canine and feline history some snarling son of a Turkish rug spoiled the blue ribbon winning possibilities of a princely pup by mussing up and even scratching away some of his fine, silky hair, thereby embroiling in a grand *melée* the whole existing cat and dog tribe; and so, the feud has continued to the present generations of the dogs and cats.

But cats and dogs are reckoned to be devoid of reasoning power. Why not expect better things of *men* who, supposedly, are possessed of reason. Why do not Catholics and Protestants fraternize? Oh, because one time the Protestants protested against the Catholics and the sores occasioned thereby continue to chafe. Stranger still, why do not the various Protestant bodies amalgamate, since their differences are so trifling, if any? I was once given considerable entertainment through hearing an intelligent Presbyterian trying to tell why he was a follower of Calvin. He uttered many words, but he did not put it across. Even Democrats and Republicans often don't know what their differences are. Right here, however, I would say, though I was raised a Democrat, I don't want to be called one now. I believe in Homeopathic law, but why should I be called a Homeopath? May just as reasonably call one a hydropath who believes in the use of water as a method for treating some human ills.

So, if it be true that treatment of the sick cannot literally be designated "practice of medicine" in this advanced day, does it not seem foolish that we should be divided simply on a premise of method of drug administration? But on this basis a feud started and tradition decrees that a certain group shall be called the *old school* and another group *homeopaths*. Whereas, I submit that practice according to any set principles has become obsolete with all of us. Notwithstanding, if we have any sense of humor, we cannot help being amused at some of the tenets which prevail in the administration of our city hospitals. In one, I believe it is stipulated in the primal bequest provisions, that no homeopath shall

serve on its staff. In the other, there are yet those who are as fond of the name *homeopathic* emblazoned on its front, as a priest of his multitudinous vested saintly robes and chancels. Rivalry between these, surely; but why should it be any more than a friendly rivalry? I know there used to be rivalry between the Jefferson and Medico-Chirurgical hospitals, and I suspect that today there is rivalry between the University and Jefferson Hospitals. But the staff men of these latter hospitals fraternize without restraint.

After all, the greatest purpose of physicians should be "service to humanity". The largest service cannot be rendered when we are opposing each other. Why should trivial differences in treatment cause us to stand apart, for I believe it is a fact that even men associated on the same staff are exponents of somewhat different methods and procedures. So, if we cannot agree let us agree to disagree, but nevertheless, be amiable toward each other. One of Seth Parker's songs goes thus: "You go to your church and I'll go to mine but we'll all go along together."

Personally, I desire to commend the Cooper Hospital Staff for its pioneering, in having our society meet with its members for a clinical conference. This, I realize, necessitated considerable effort and coöperation in order to stage an interesting and instructive program. I was much disappointed that our hospital did not make a show to emulate. Our failure to do so was a matter of great chagrin to me.

But why expound a condition without some proposal of a remedy? I stated that the greatest purpose of the physician is service to humanity. Do we not feel then, that playing in this rôle we are treading on the highest plane that the exponents of any profession or calling can walk? So, then, I believe it behooves us to be above the ordinary dawdling, incident to odious comparisons. But, as I see it, physicians, as individuals or organized bodies, are fearful lest they be deprived of some specific glory or credit to which they are entitled. We cannot but feel sorry about the controversy which waged between Morton and Long as to whom the credit belonged for discovering the anesthetic properties of ether. Ac-

cording to DaCosta, Long was a gentleman and did not press his claim, whereas Morton engaged in many wordy combats and allowed his temper to run wild, and as a result, in one of these fiery incidents his life-cord snapped and he passed on into the great beyond.

Do we not hold to the slogan that one physician's discovery should be made known to all others? So, then, since no royalty may come from a particular discovery, why get into a ferment because of failure to receive great plaudits or acclamation? I believe that the initial feud between the homeopaths and the dominant school was caused by the exponents of one or the other making claims for superior achievement. Or, in many cases it resolved itself into the regular medico saying that "the homeopathic treatment was negative", and the homeopath saying that "the regular jalaped, mercurialized, leeches, bled his patients to dissolution". Unfortunately, there are still some blatant stand-patters on each side heralding such declamations.

In the final analysis, I wonder if our failure to harmonize and be friendly is not for mercenary reasons? If this be so, is it not a deplorable acknowledgment? Sellers of Cadillac and Packard cars, respectively, might just as reasonably show their canine teeth at each other. Dare I give a personal concrete illustration? I have in mind a certain physician whom I regard as one of my best friends. That is, I would "touch" him for a loan as quickly as any one I know, but he is a member of the dominant school. I hope he holds the same friendly feeling toward me. Our friendship was never initiated on any basis of patronage, but I like him because he is a man of honor and good purpose. I am sure that on the principles of medical practice, we would disagree, and though many times while together we have gossiped about various things, yet we never broach comparative therapeutics. Incidentally, I might say also that in the past year friendly ties have been woven with several physicians, to add to a store of assets that I prize above gold. So that, notwithstanding in the year 1930-31 I have sunk beyond recovery several thousand dollars, I consider myself as being much richer, because of the contacts and consequent friendships that I have made

during this time with physicians of this society.

I do believe that the most intelligent and leading physicians crave to fraternize, for in unity there is strength, and through more frequent friendly meetings knowledge can the better be disseminated. I like the ideas expressed in the following verse:

Not as a ladder to reach high heaven,
Not as an altar to any creed,
But simple service, simply given,
To our own kind in their hour of need.

So let the proclamation be heralded—Come all ye physicians together in one fraternity, for interchange of ideas, promotion of higher standards, and enjoyment of good fellowship. Let each medico be above the sordid business of ridiculing or casting aspersions upon his fellows. Differences of opinion are bound to exist, but friction, between groups who subscribe alike to common standards of education, is fallacious. Just because there is no patronage between groups, is no good reason for not fraternizing. Certainly our ways in life will be happier if we reciprocate kindness, exemplify toleration and ethical conduct, and show a readiness to exchange ideas, with those who labor with us to mitigate human suffering. I am constrained to believe, because of the larger knowledge I have obtained of my fellow practitioners in the past year, that we are all ready to pull together on the above declaration of purpose.

Else our lives are incomplete,
Standing in these walls of time;
Broken stairways where the feet
Stumble as they seek to climb.

IN MEMORIAM ROBERT KOCH*

Fiftieth Birthday of the Tubercle Bacillus

FELIX BAUM, M.D.,
Newark, N. J.

March 24, 1882, was a turning point in the history of medicine. Dubois-Raymond, President of the Physiological Society in Berlin, took the floor and announced the paper of the

evening: "Dr. Robert Koch will address us tonight on the subject—"The Etiology of Tuberculosis."

Robert Koch? Who is this man? Nobody seemed to know him. "A former country doctor", said a man in the audience, taking his newspaper and reading with interest the topics of the day.

It is true: Robert Koch had been a simple country doctor. He did not have the "carrière" of the average German scientists back of him. He had started as a physician in a village near Hanover, in 1867, but was unable to make a living. So, he took his stethoscope and his satchel, and went further east, to Rackwitz, a country place in the province of Posen. Here, he made \$750 a year, out of which he saved \$300 each year—in order to secure enough money to visit America. But his first wife, a small-town, petty woman, detained him: "Bleibe im lande und nähre dich redlich"—stay in your country and make an honest living, Robert, will you please listen to me? And Robert obeyed.

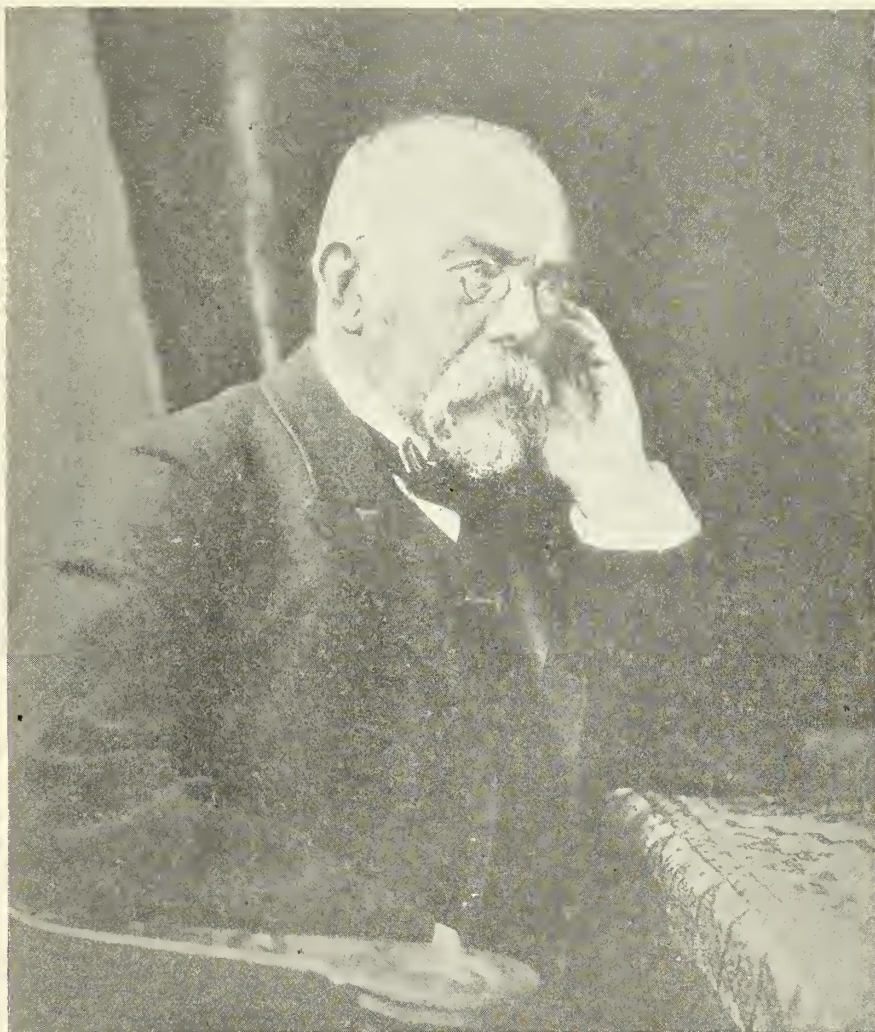
History, and medical history especially, so often depends upon pure accidents which, according to Napoleon, seem to rule the universe. By accident, one of the greatest physicians, influenced by a woman of no importance, decided to stay away from America. What a loss for this country! Koch realized only too late his life's mistake when, after a divorce, he married in 1893 Hedwig Freiberg, an intelligent, sympathizing and understanding comrade who accompanied him on his research voyages to all parts of the world. She it was who, after Koch's death, collected all the important letters and pictures, which will be published soon by a hygienist in Berlin. In a letter which I received from her last year, she regretted very much that the publication of a "real biography of Koch" had been postponed until now, since only a "small, misconstrued, one-sided and hostile book, influenced by his first wife" was in existence. "This is the only explanation for the fact that such a grotesque makeshift (Machwerk) as the chapter on Koch, in Microbe Hunters, became possible", she adds, in her reply to my letter.

The war of 1870 interrupted the monotony of his married life with the first wife, and Koch

*(Read at the meeting of the Academy of Medicine of Northern New Jersey, Section on Medicine and Pediatrics, Feb. 9, 1932.)

went to the front, but 2 years later he was appointed county coroner in Wollstein, a small town near Rackwitz, in Posen. *There, Koch began his fundamental studies in tuberculosis.* His birthday came, and Frau Koch number 1 intended to give him a practical gift, a pair of warm slippers. But, before she decided to spend so much, she asked her husband what

of Berlin authorities to this remarkable young man, and within a short time Koch received a call as "Regierungsrat" (advisory councillor) at the Department of Health (Reichsgesundheitsamt), in Berlin. He continued his tuberculosis studies started at Wollstein. What a joy it was to work in a real laboratory with incubators continuously heated by gas. How



Picture No. 1: Robert Koch (Muenchener Med. Wochenschr. Bellage)

he would like. He preferred to have her buy a microscope; though it was cold in the house, and money for coal was scarce.

Soon, Koch's name became known to those interested in research work. He had communicated with Ferdinand Cohn, in Breslau, and went to him to demonstrate the results of his studies on anthrax. Cohn called the attention

much more pleasant it was to work in Berlin than it had been in Wollstein, where he had as incubators only improvised boxes heated by candles and oil lamps, which must be watched constantly to keep them at 37° C. and at a certain distance from the containers of precious material.

The publication, in 1882, was only a very

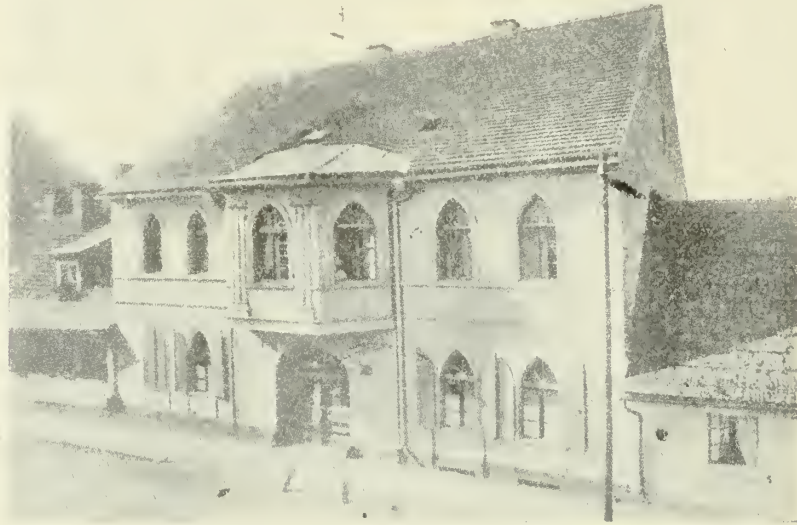
short preliminary announcement, to be followed in 1884 by the well-known, masterly work then put before the medical public. Koch's publications were received with some skepticism, especially here in America. When the bacilli were shown in New York for the first time, a leading clinician remarked: "I don't believe that those damned little things can do us any harm." It is amusing to look through American medical literature of that period, and read statements made by leading authorities, but I shall mention only a few:

E. Cutter (Medical Weekly 1882): "The tubercle bacilli are nothing new. They are only babies of the mycoderma aceti."

without comment, since it is too early to make positive statements regarding it. Doubtless, our readers will follow his descriptions and reasonings with the intellectual interest, at least, that attaches to *all things transcendental*."

Satterthwaite (Med. Record, 1882, p. 481): "As far as my personal experiments are concerned, I have not been able to discover these bacteria by Koch's method." (which, in Satterthwaite's opinion, proved that they did not exist).

Schmidt (Chicago Med. Jour., Dec. 1882) tried in every way to see the Koch bacilli, but he could not find them. He, therefore, maintained that they were nothing but fat crystals.



Picture No. 2: Koch's Home at Wollstein, Province of Posen, Germany, where he began his research work in tuberculosis (8)

Shrady (Editorial, Med. Record, May 20, 1882): "... The above is a brief account of Koch's experiments and conclusions. They have excited much more talk and attention than at present they seem to deserve. We confess to some skepticism regarding the facts, and still more to their *far reaching significance*."

Shrady (Editorial, Med. Record, June 24, 1882): "... No one, except Koch, has as yet announced that he has found the tubercle bacilli, independently, by Koch's method."

Shrady (Editorial, Med. Record, July 22, 1882): "Dr. P. Ehrlich announces a new method of showing the Koch bacillus. We submit Dr. Ehrlich's account of his discoveries

Formad (Phila. Med. Times, Nov. 1882) could not detect Koch bacilli in caseous destruction of the lungs and believed that they were not different from other bacteria.

In a "Critical discussion of publications directed against the significance of the tubercle bacilli", Koch ironizes his opponents. The most cruel and pitiless criticism is directed against Spina (Vienna), whose work had been translated and favorably commented on by Sattler (Cincinnati). Koch says: "I have never encountered a work more mediocre in every respect than that of Spina. He treated the inoculation material with a bichloride of mercury brush. In spite of the fact that he never ob-

tained cultures, and in spite of the fact that he never had seen any, he still made some inoculations with these cultures. The only result of Spina's work is this, that he badly damaged the scientific position of himself and of

follows: "It was not a pleasant task for me, to criticize a literature so thoroughly valueless, but I could not evade this duty in behalf of the interest of the cause. I shall carry this burden, also, in the future, but I hope to meet

Ich in Honolulu traf ich ganz zufällig, daß ich
durch einen Leproskranken Landmann mit den Leproverhältnissen
der Hawaii Inseln bekannt wurde. Die Inseln ganz eigentümlich
nicht, so habe ich ~~hier~~ benannten Lepros-Colonie auf der Insel Oahu.
Kai einen Besuch abgestattet und habe dort recht interessante
Beobachtungen machen können. Dann habe ich im anatomischen
Institut der Zuckerplantagen mir bis dahin fast ganz unbekannte
Prinzipien kennen gelernt, welche dazu dienen, Pflanzen schädliche
zu bekämpfen, sich mutatis mutandis aber vielleicht auch ^{auf} gewisse
menschliche Krankheiten, bei denen Juckreiz eine Rolle spielen, an-
wenden lassen. Hier in Japan habe ich über Tuberkulose, Le-
pra, Bes-Bei, Pest, Rinderpest mancher in Erforschung gearbeitet.
Somit verfüge ich jetzt schon über so viel Material, daß ich ~~ich~~
einen Referat-Teil füllen kann.

Ich schreiben wegen der Proteste der afrikanischen Jagdfreunde gegen
meinen Vorschlag, das große Wild zu berätigen. Man hat mich in dieser Zu-
gelegenheit vollständig mißverstanden. Ich habe niemals an eine allgemeine
Verrottung der Wildstände gedacht, sondern direkt nur für solche jagenden für
zweckmäßig gehalten, wo Verheerung getrieben werden soll und ich habe vorhin
nicht nur eine Vorrede in kleinen Umsätze empfohlen.

Mit besten Grüßen Ihr ganz ergebener R. Koch.

Picture No. 3: Facsimile letter of Koch, sent to his successor Gaffky (8)

the institution in which he received his knowledge of bacteriology, and under the authority of which he published his book. Spina's work has no influence on the teachings concerning the significance of the tubercle bacillus." Koch summarizes his answers to his opponents as

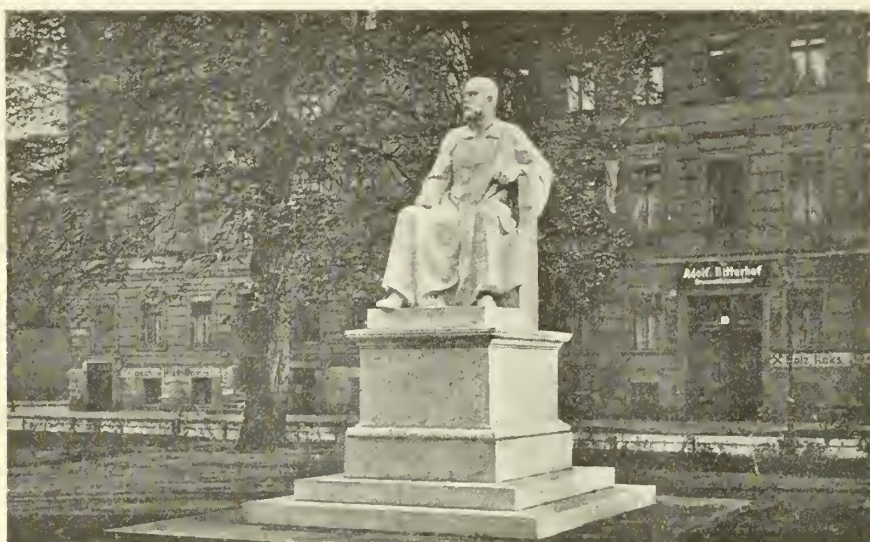
then a material worked out more diligently."

The most important critic of Koch was Rudolph Virchow, who met every new announcement by Koch with strict opposition. Others were enthusiastic from the beginning about Koch's discovery. When Cohnheim received

the message, he said: "Never in my life had I such a joy as when I learned about the news of Koch's bacillus". Wagner (Leipzig) and Weigert made an appointment to meet at Koch's laboratory during the Easter vacation and to study the bacilli under Koch's personal instructions. It is interesting to read about this episode: "First, Wagner looked into the microscope, then Weigert. Wagner was up in the air and overwhelmed with joy. Weigert, however, did not show his excitement in an animated expression. Wagner looked at him jealously and said: 'I am inclined to suspect you, Weigert, of having seen the bacilli already yesterday'."

ands streamed into the Charité Hospital, new barracks were hastily built to house all the tuberculous patients seeking for Koch's help. *My boy friend was one of them. And he died.*"

It must be admitted that many consumptives, during those exciting days, paid for their enthusiasm with their lives. Tuberculin was injected in tremendously large doses and the pathologists had much work to do. Virchow, never a friend of Koch, autopsied many of these cases and, when he removed the lungs from the body, he threw the organs angrily into the corner of the autopsy table and murmured, with a cynical expression on his face: "Tuber-



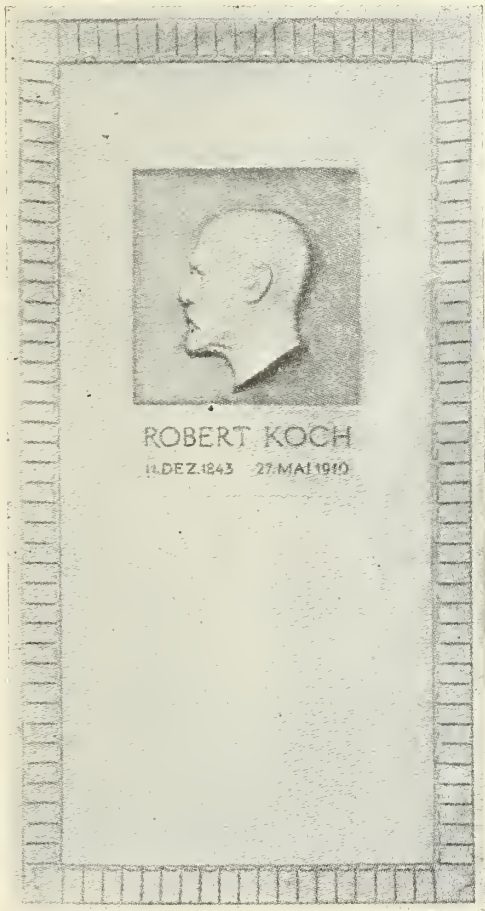
Picture No. 4: Robert Koch Monument at the Luisenplatz, Berlin (Kunstverlag J. Goldiner, Berlin C. 25)

Koch's monument (picture 4) was unveiled in Berlin in 1916. The sculptor Tuaillon was honored with the task. There he sits, upright, a genius with a tremendously large skull, his eyes directed at the Institution where he had finished his work for suffering humanity. The buyer of this picture postal card had a peculiar experience at a little stationery store near Koch's monument. The owner, a little old maid, pointed with her finger at the picture and said, with tears in her eyes: "I have that man in a bad memory. When Koch had published his work on tuberculin, the newspapers were full of articles celebrating the discoverer of the remedy to eradicate tuberculosis. Thou-

culin lung". Koch, himself, was the last one to claim discovery of a remedy. He warned the medical world against overestimation of tuberculin, in his famous article, published Nov. 13, 1890, where he points out the significance of tuberculin as a "diagnosticum" and adds cautiously that, in his opinion, it is possible to cure incipient cases with certainty but that the time of observation had been too short to come to definite conclusions. Many of his former opponents, even, believed in the curative value of tuberculin, and no less a man than Pasteur, to whom Koch had sent a bottle, exclaimed: "Cela y est, cela y est, il n'y a pas à discuter (There it is. There it is. Discussion is superfluous)".

He congratulated Koch in a telegram for his "grande découverte".

It would lead too far to discuss, in an article dedicated mainly to the discovery of the tubercle bacillus, Koch's contributions to the knowledge of other contagious diseases. I, therefore, only mention his work on cholera, typhoid fever, bubonic plague, erysipelas, leprosy, malaria, black-water fever, recurrens,



Picture No. 5: Marble plate of Koch, by Walter Schmarje, at the Robert Koch Institute where Koch's ashes rest (8)

Tzetzé disease, sleeping sickness, Texas fever, horse sickness (pferdesterbe), and others.

Koch's first thesis, published in 1865, when he was a student in Göttingen, working under Jacob Henle, anatomist, was honored with a prize from the Medical Faculty. The introductory slogan of this work on the anatomy of the nervous system, was: *nunquam otiosus*. Never tired, he dedicated his wonderful life, full of struggle and hard work, to suffering

humanity. He was a seeker of truth, in the real sense of the word. His character cannot be better described than by the translation of his summary on "Natural Healing and Medical Art":

"It might be a great source of enjoyment for sensitive and poetic souls to imagine the world and human nature as perfect, and to recognize in this perfection an articulate proof of the creator's beneficence and omnipotence. If our recognition of imperfections of human organization arrested such a beautiful dream of naive observers too cruelly, we gave them at least a substitute in our dismissal. For we showed human science and art bringing to completion the imperfect healing of nature. A totally perfect world would mean its approaching end. For the struggling fight that springs from need, and work that seeks truth and higher perfection, they alone are the true life and real enjoyment thereof."

Koch died of angina pectoris, March 27, 1910. His ashes rest under a marble plate at the "Robert Koch Institute" in Berlin.

A German magazine published, shortly after his death, the following poem, written by Warncke:

Er hat mit seines Geistes Fackel tief
Ins dunkel Todestal hineingeleuchtet.
Aufsprang das Tor, als er sein "Sesam" rief,
Und Augen wurden hell, die leidbefeuchtet.
Im Leben fand er Tod, im Tode Leben,
Und unermüdlich vorwärts drang sein Streben.
Zu frühe rief ihn ab ein jäh Gebot.
Warum so früh?—

Ihm fürchtete der Tod.

I tried, with the help of my son, O. S. Baum, and of my friend, L. Westerman, to translate this poem, with the following result:

His torch of genius into death's dark vale threw
light.
The door sprang open when his "Sesame" it
heard.
Eyes, once with sorrow dim, with joy grew
bright.
In life 'twas death he found, and in death life
And never tiring strove forever forward.
Too early was he cut by Death's grim scythe,
And why so soon?—

Because death feared his sword.

SUCCESS OF POST-GRADUATE COURSES

HENRY O. REIK, M.D., F.A.C.S.,

Atlantic City, New Jersey

From all over the state, at every County Medical Society meeting attended during the past 4 months, the Editor has been hearing favorable reports concerning the excellence of lecture courses previously provided and now being offered, and most enthusiastic predictions as to the number of physicians likely to be enrolled this season. And, it is a mild statement from this office—to say that, *we are highly gratified*. Having had something to do with the starting and establishing of this work, and recalling that as recent as 1928 the House of Delegates adopted a special committee's report which stated that there was no demand for post-graduate medical courses in this state, the Editor feels much more than *gratified* by the immediate and continuing success of this movement.

President Hagerty recently made a statement about the "State Society-Rutgers Post-Graduate Courses", growing out of his personal observations, to the effect that: "This is a splendid activity of the State Society; possibly one of the best things it has ever undertaken." Shortly afterward, there came to our desk a copy of the February issue of the University Extension Record, on the front page of which appeared an interesting article under these captions in bold-faced type:—"Medical Program Now in Third Year"—and, "1400 Doctors of State Have Had Part in Post-Graduate Work." From the context of that announcement, we have abstracted the following:

"For the third successive year, the University Extension Division of Rutgers University has coöperated with the Education Committee of the Medical Society of New Jersey, to conduct a group of post-graduate courses in the form of lectures and clinical demonstrations by leading medical authorities, for the doctors of New Jersey. *It is doubtful if any other such elaborate and generally profitable program of service for the medical profession*

has ever been executed by extension in any other state in the union. By the close of this, the third year, there will have been more than 60 classes conducted, with more than 1400 doctor-enrollments during that period."

"Lacking a state educational center for medicine, the doctors of New Jersey have taken advantage of the facilities offered by the Division, * * * which assumed all business and financial responsibilities, including the engaging of lecturers, maintenance of records, and handling of all arrangements necessary to see each course to its successful completion. The responsibility of the State Medical Society, through its Education Committee, appeared in the technical guidance required—a factor of greatest importance. In endeavoring to conduct the courses to suit exactly the requests of the County Societies, for which each extension educational center was operated, considerable arrangement, re-arrangement, and manipulation became necessary in order to evolve the most specifically beneficial program. A "technical advisor" was appointed from the State Society's Committee to simplify the necessarily involved process of coördination between the Society and the Division.

In brief, the University Extension Division of Rutgers has arranged and conducted the programs, under the guidance, direction and assistance of the State Medical Society, in compliance with the wishes of the County Component Societies."

"The State Society Committee, coöperating with the University Extension Division, is composed of Drs. Samuel A. Cosgrove, Jersey City, Chairman; Harry H. Satchwell, Irvington; Richard D. Anderson, Burlington; Royce Paddock, Newark; Alexander Macalister, Camden; Edward G. Waters, Louis A. Pyle, and Herman Behrens, of Jersey City. Dr. Harry H. Satchwell, of Irvington, as *technical advisor* by appointment, is providing the technical guidance and assistance necessary to the most efficient organization of the courses."

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Each member of the State Society is entitled to receive a copy of the JOURNAL every month. Any member failing to receive the paper will confer a favor by notifying the Chairman of the Publication Committee of the fact.

NOTE.—The transaction of business will be expedited, and prompt attention secured if:

All papers, news items, reports for publication and any matters of medical or scientific interest, are sent direct to The Editor, DR. HENRY O. REIK, Vermont Apartments, Atlantic City, N. J.

All communications relating to reprints, subscriptions, extra copies of the JOURNAL, books for review, advertisements, or any matter pertaining to the business management of the JOURNAL are sent direct to THE CHAIRMAN OF THE PUBLICATION COMMITTEE, (address above), Newark, N. J.

REVISED WORKMEN'S COMPENSATION ACT

(An editorial contributed, upon invitation of the Editor, by our President, Dr. John F. Hagerty.)

News of favorable action by the House of Assembly, in adopting an amendment to the Workmen's Compensation Law, which will grant *injured employees the right to choose their own physicians*, was received by medical men with a great deal of satisfaction; and especially pleasing was it to members of the State Society's Special Committee which has been for several months engaged in studying the provisions and consequences of that law, and hoping against hope that such a change as this might be effected. And right here let us say that no little credit may, and should, be taken by our committee for having *voluntarily suggested* a conjunctional amendment, in a clause which grants *employers* the right to bring in physicians of *their choosing, for consultation* when and as often as desired. Our committee was anxious to be just and fair in this matter, appreciating the rights of employers as well as of workers, and it is believed that this offering of the additional amendment, helped very much toward acceptance of the whole by the Assembly, and that it will likewise favorably influence the Senate.

Anticipating adoption of the amendment by the Senate, and its final enactment into law, it may be well to express the hope that physicians will not only appreciate the turn of fortune which has come to them—because it must be admitted that there was resentment to a law which denied an individual the right to

choose the physician whom he knew and in whom he had confidence, and the physician often suffered because of that resentment and because of the bar against him—but that they will also realize the added responsibility which this change imposes. It must be remembered that this law was set up originally in the interest of the working man and "is based on the principle that risks to employees are inherent to industrial operations, and that indemnification for the resultant loss should be regarded as one of the costs of doing business". Formerly, the employer could hold that there was an assumption of risk by the workman, but under the Compensation Act liability is based, not upon any act, or omission, of employee or employer, but upon the relationship which they bear toward each other in industry. And there was established a definite scale of benefits in accordance with the nature of industrial injuries, which are guaranteed, in exchange for abandonment by the employee, of his previously held right to bring suit for damages. Before the advent of this law, the injured workman was often a charge upon the hospital; the physician was often unpaid; the workman did not receive compensation after leaving the hospital; and, if suit to recover damages was brought, even where culpability was apparent, the final award was often consumed in costly litigation; and not infrequently—if incapacitated—the workman was discharged by his employer and left with no means of further support.

Now, this is all changed. The Compensation Law obliges the employer, or insurance carrier, to furnish treatment (medical, surgical and

hospital attention) and, it may be said that on the whole, very substantial compensation is allowed for such treatment; and the relation of physicians to injured workmen assumes an entirely different aspect. Prompt and capable medical attention is of prime importance in order to prevent infection and expedite recovery. Minor injuries might end in serious disability, or death, if neglected. And, too, the employer who must pay, and is without the services of the employee, is concerned about his return to work quickly and in fit condition. The opportunity is afforded physicians of caring for these patients under the most favorable conditions—proper hospitalization, operations, dressings, laboratory assistance—and the assurance of financial reward for whatever time and skill is expended, should create a desire to establish the best of relations among all the parties involved. The inclination to capitalize one's opportunities in treating these patients, is mentioned only to be decried. There are certain obligations placed upon the attending physicians, to which they should readily subscribe. The employer, or carrier, is entitled to know at once the nature of the injuries and the prognosis as to recovery and probable length of illness, and, too, of the progress while under treatment.

Further, should the illness be prolonged beyond the allotted time, 2 weeks, and seem likely to involve unexpected care and expense, a report must be made to the employer or carrier, and a special request made for such additional remuneration. Under the amendment, requests for consultation should be agreeably and promptly complied with; and everything possible should be done to satisfy the employer that the nature of the illness is understood, and that the proper plan of treatment is being pursued.

All this seems little in exchange for the added benefits and satisfactions accruing to physicians, by the revised law, and the avoidance of case-lifting and other features which were such a fruitless cause of dissatisfaction under the old policy.

While this law was designed, primarily, as one of social justice to workmen killed or disabled by accident or occupational disease, and is to be admired as a splendid piece of forward-

looking legislation, it has, also, reestablished those happy relations that have always existed between patient and doctor, and it is to be earnestly hoped that future experience will be such as to justify the wisdom of those responsible for its enactment.

PAYING—EXTRAVAGANTLY—FOR A NAME

Among the many advertisements, more or less well disguised to effect entrance along with their mail, physicians occasionally find one that is interesting or informative, perhaps even worthy of serious consideration. Only a few days ago one of the last mentioned sort arrested our attention, and while the information thus gained was not at all new or startling, it *was timely*; and it was perhaps for that reason we felt impelled to pass along to our readers that bit of information. And, in doing so, we may add thereto our own deductions, of an advisory character, because the appropriate relationship of the advertisement to present conditions—its timeliness—will fail to produce results of the sort desired, unless it be treated as *advice* and then converted into *action*.

The ad referred to was in the form of a letter received from a reputable Newark pharmacy—Petty's—and dealt with the question of prescribing proprietary preparations; with reference, particularly, to using the *patented* (proprietary) trade name and thereby forcing the patient to pay an unnecessarily high price to have that prescription filled. In times of "depression", such as exist now, and especially while the profession is being criticized—justly or unjustly—for whatever part its members play in "the high cost of sickness"—we should carefully avoid doing, or causing to be done, anything which will add to the burdens of the patient.

The statement which arrested our attention (in the pharmacist's letter) was about as follows: "In these trying times, coöperation between the physician and the pharmacist, for the purpose of easing the financial burden of the sick, is more essential than ever before. We have no desire to dictate what you should or should not prescribe for your patients, but we believe that you will approve our suggesting a means whereby prescription costs to

your patients may be reduced considerably without in the least degree impairing the therapeutic effects desired."

The pharmacist then directed attention to a dozen preparations in common use and frequently prescribed, and by use of the convincing "parallel column" arrangement, pictured the comparative cost of each as prescribed under the *proprietary* name, or under the *chemical* name.

For example, let us compare the relative prices of 12 such substances, ordered in quantities of 1 ounce each, under the patented and chemical names, respectively:

Proprietary	Price: 1 oz.	Chemical	Price: 1 oz.
Phenacetin	\$.63	Acetphenetidín ..	\$. 20
Aspirin Bayer ..	.85	Acetylsalicylic acid	.15
Veronal	3.00	Barbital .....	.70
Atophan	2.75	Cinchophen .....	.35
Duotal	1.07	Guaiacol carbonate	.27
Urotropin .....	.60	Methenamine .....	.13
Tolysin	2.25	Neocinchophen ..	.97
Luminal (in ½ oz. carton)	6.90	Phenobarbital ...	1.75
Trional	1.90	Sulphonethyleme- thane .....	.50
Sulphonal	1.70	Sulphonmethane..	.40
		Theobromine so- dium salicylate.	.30
Diuretin	1.85	Thymol iodid ....	.68
Aristol	1.80		
Total	\$25.30	Total	\$6.40

Under its patented name, each drug will cost approximately 4 times as much as when purchased under its proper laboratory name. The pharmacist is not to blame, because he is, professionally, in honor bound to supply the *exact thing* prescribed—and dare not substitute. It is a point which deserves some thought with regard to these, and a few other preparations which are extensively advertised.

KEEPING UP TO DATE,
SCIENTIFICALLY

In keeping with our State Society's efforts to provide post-graduate instruction for its members, at low cost and without interference with their routine day's work—in other words, delivered at their office doors, practically—we found some interesting reading in an address delivered by Dr. Ray Lyman Wilbur, a member of President Hoover's Cabinet, and at one time President of the A. M. A., at the 50th Anniversary of the New York Post-Graduate Medical School, using for his subject the title

at the head of this editorial. And, some of our delight and satisfaction derived from that reading was due to the fact that this Society is so far advanced in development of the line of procedure therein laid down. So, we are taking the liberty of quoting liberally from a copy of his address, which reached us through the courtesy of Dr. Stanley Nichols.

Dr. Wilbur said, in part:

"Within 3 decades American medicine has been made over. The laboratory has won its way into every department of the medical school, as well as the hospital. Empiricism has largely succumbed to the scientific method. The doctor who is working today with the education given him 30 years ago belongs in the antique shop. The doctor who does not read the current medical journals, follow the activities of the various medical societies and attend occasional clinics, is not a good public servant. The doctor's life is one of clinical experiences, study and reflection, and association with his fellows. Many facilities are now required to care for the sick in a satisfactory and intelligent manner. With the telephone, improved highways, automobile, trained nurse, and hospitals, most parts of our country offer the doctor time-saving methods of caring for the sick. If the time saved goes either from day to day, or concentrated in several weeks at a time, into periods for relaxation for personal health and into opportunity for further study, great professional advances are possible."

"The successful doctor is an enthusiast. If he did not love his profession, the calls upon him are such that his life would be one of constant annoyance, disappointment, worry and dissatisfaction. Loving his profession, he wants to do his task as well as it can be done."

"While I am deeply sympathetic with undergraduate medical school instruction, I do feel that certain cities of the United States should devote themselves to the further training of physicians rather than the instruction of students. Experience has shown that medical students can be adequately handled in comparatively small communities, while only large centers can adequately deal with the difficult training of mature physicians. There is need of better organization of material and better provision for post-graduate instruction."

Special Article

THE PROFESSIONAL BUILDING

144 Harrison Street,
East Orange, N. J.

John Hammond Bradshaw, M.D., F.A.C.S.,
Orange, N. J.

It takes no little courage for a small group of doctors to spend half-a-million dollars (\$500,000) on a single project at any time, but if this is true, generally speaking, it is especially true just now in a time of terrific financial strain and stress. For, remember, this is the "year of our Lord", 1932. Physicians have the unearned reputation of pulling in different ways from each other. In some towns they have even been known to work against each other; to their own detriment and to the detriment of their patients (which is sure to follow). The enterprise about which this is written is a sincere effort for united endeavor and to give the people of the Oranges, Maplewood, and surrounding towns a service as good as, if not better than, can be obtained in any of the great "Medical Centers" in any of our great cities; though the doctors freely admit that this building is not to be a free dispensary. If you pay out \$500,000, is it not just that you should expect some returning compensation? Let us read what Henry Ford said, in the press the other day: "Without profit business cannot extend." There is nothing inherently wrong about making a profit, but profit must and will inevitably come as a reward for good service. It cannot be the basis—it must be the result, of good service.

This *Professional Building* is located opposite the Suburban Hotel, on the east side of Harrison Street. We all know Harrison Street as the equivalent, for the Oranges, of New York City's "Park Avenue". The building may in reality be called a "steel skyscraper", as it is 8 steel stories high; the first story of handsome Indiana limestone, the others of varicolored buff brick. All the windows have steel casements and 6x10 panes of plate glass. They are beautiful. Tarazzo flooring is in the halls, and finely laid cement flooring is in the offices. The entire building is of fireproof construction, but, besides, on every floor there are fire standpipes and appropriate hose connections. Beneath the windows are concealed radiators; the construction being such as not to encroach on the floor space of any room, yet each room is well lighted and heated.

But, having given this hasty sketch, let us now approach, in person, the building from the

Harrison Street frontage. We find the structure stands about 100 feet from the roadway, flush with the other buildings on this beautiful street. There is a driveway on each side; the one on the left, or north, for entrance; and the one on the right, for exit. Now, most wonderful to relate, there is parking space for 175 cars in the rear of the building. There, one will find a uniformed attendant to facilitate parking, entrance and exit, and safety, for doctors and patients; and, for that service there will be no charge to any patient.

Looking at the building, one is impressed by its elegant simplicity. There is no rococo or stucco ornamentation on it whatsoever. The building is set up for service. The money spent has been for utility and convenience, not for show. In front, in the center of the ground floor, are 2 heavy bronze doors, on either side of which, carved in Indiana limestone, is displayed what is called a *Caduceus*. Another of those emblems is also over the door. This, remember, is the doctors' jealously guarded emblem. Our physicians even carry it on the radiators of their automobiles. It consists of a herald's wand about which are entwined 2 serpents. Now, Hear Ye!, Hear Ye! It is a symbol of good conduct, peace and prosperity. The rod, represents power; the serpents, wisdom; and the wings, diligence and activity. How could a doctor's building give a better welcome to an approaching sufferer and a seeker after health?

One enters a vestibule, and then the main lobby. The latter is wainscoted with beautiful dark wooden panels. On the first floor is a "Pharmaceutical Laboratory". It will be useless to ask for drinks, sandwiches, or candy. It is only what its name implies. It will be of great convenience to all patients.

There are about 5 doctors' office suites on each of the 8 floors, which are served by 2 elevators and the required number of attendants. The directory in the lobby will tell you what you want and where to go. The telephone service is to be perpetual; i. e., never closed, and as the exchange is just off the lobby, it should receive a visit in order that we may become acquainted with its perfection of detail and operation. Each doctor's suite is served with a competent nursing service. The "rest" rooms with each suite will be of great convenience, and the large flat roof of this building has many possibilities, though at present, it is only planned to cover it with an awning in summer. The view from that elevation is one you should take in when visiting the building.

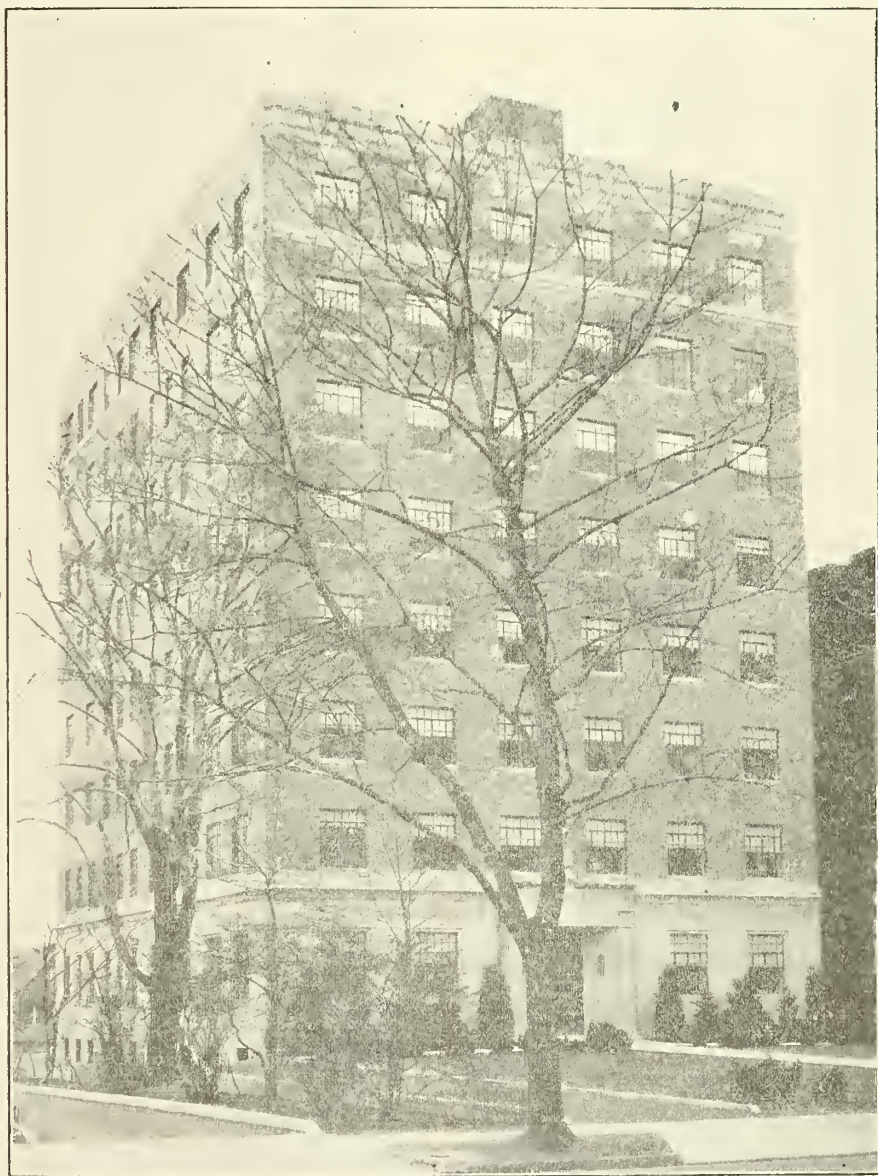
Now, what are the advantage accruing to a physician's having his offices in this building and at this location?

(1) For a moderate rental (\$2.90 a square foot of space) he can have modern equipment for his offices in a most central and convenient location.

(2) He has at once the professional standing of being classed with other high-class professional men.

service that is assured always, night and day. If he is out, the telephone operator will know where he can be found. This is of inestimable value to him from a business point of view.

(6) He can combine with any other doctor, or group of doctors, on his floor space and thus save money.



The only Professional Building in the state entirely financed by the doctors themselves

(3) His home life is not invaded by his business.

(4) Included in his rental, he gets gas, compressed air (for his atomizers), electricity, water, and all necessary service excepting personal nursing for his patients.

(5) He is part and parcel of a telephone

(7) He can also combine with others, if he desires, and share the expenses of special nursing service.

(8) He is surrounded, in the same building, by specialists in all the departments of medicine and surgery. He can thereby give his patients the benefits of the very best and

least expensive form of group practice service, which he can keep under his own control and keep in constant touch with, without sending his patients out of town.

(9) He has the satisfaction of being one of the first, if not the only, group of doctors who have themselves, alone, financed such an ambitious project, the like of which has never before been attempted in the state of New Jersey.

The building was constructed by Robert Allen, Inc., and is under the management of the following list of officers and members of the Board of Directors, all members of the Essex County Medical Society, and, thereby, of the Medical Society of New Jersey: President, A. W. Bingham; Vice-President, B. B. Ranson, Jr.; Treasurer, William H. Glass; Secretary, G. Herbert Taylor. Directors: John E. Parker, George S. Reitter, Raymond T. Potter, Earl B. Stokes, Arthur F. Thompson, Charles H. Evans, Wm. E. Wakeley, Robert E. Dorr.

Economics

ECONOMICS OF EARLY LIP READING

(From An Otolologist's Standpoint, By Wendell C. Phillips, M.D., in *The Auditory Outlook*, of October, 1931.)

The developments of modern medicine have reached a point which kindles the imagination not only of the scientists of the world, but of the educated lay public. Medicine is now enshrined in the new era of *prevention*. The trite saying that prevention is better than cure forms the basis of our extensive, well organized system of public health endeavor, which marks the development of the last fifty years.

The doctrine of protection of the public health by applying every possible scientific principle of prevention has revolutionized the practice of medicine, to a considerable degree. The general public is beginning to accept this doctrine and even to teach it in the public schools. Such intelligent coöperation has brought together the economist and the physician, in a renewed faith in the sacredness of human life. Let us apply the thrifty ideas of the economist to our own profession of otology and see whether we cannot curb some, at least, of the wastefulness in human productiveness and happiness which is caused by impairment of the sense of hearing after natural speech has been established.

All of us otologists are frequently in the unpleasant position of having to tell certain of our patients that their loss of hearing is incurable. But do all of us realize that we

should advocate the study of lip reading in such cases at the earliest possible moment? We do not! Let me tell you how some of us advise hard of hearing patients:

"You're not deaf enough to take it up."

"Learn lip reading and you'll stop using your hearing."

"You won't exercise your hearing if you lip read."

"Lip reading is only for the stone deaf."

"You don't have to talk that way; you're only hard of hearing, not deaf."

"If I told my patients to study lip reading it would be equal to pronouncing a death sentence and extinguishing the last ray of hope."

"Unless you have been lip reading all your life you won't get very far with it."

Let me ask you, at this point, to recall your medical terms of Greek derivation and beg you not to make confusion worse confounded by calling the victims of hypacusia *deaf*. Since their hearing is below the line of perfect acuity, they should invariably be defined as *hard of hearing* or *deafened*. Anacusia, absence of hearing, is either congenital or acquired before the acquisition of speech, and we all know it is a very different affair indeed.

Let us return to our economics and ask ourselves how we counsel parents who are worried about a child's hearing. Now, a child with incipient but progressive hearing impairment, usually hears fairly well. We otologists are perfectly aware, and we honestly advise the parents, that left alone the child will gradually lose more hearing. We tell them that keeping up his general health will tend to hold back his loss. But do we visualize the child's future as a possible case of wasted citizenship, and urge the study of lip reading at once? Some of us say to the parent who suggests lip reading:

"Why make him conspicuous by training him to stare?"

"It's hard enough for him to carry school work without burdening him with another subject."

"He'll learn it fast enough when he needs it."

"Be careful of his eyes, don't put too great a strain on them."

"Wait until he is *really* deaf, that will be time enough."

"You might tax his nerves with the effort at concentration."

"Lip reading will make her lazy."

Aside from the fact that these statements—and every one of them is bona fide—as well as those directed to adults, have been disproved so often that they are screaming jokes to every lip reader, we must insist that they are exceedingly bad economics. More than 40 years of practice in the field of otology have taught

me that lip reading is a boon to 3 classes of persons:

First. The deaf (here you have your anasus), who are by its means brought closer into the common experiences of human intercourse. Lip reading for the deaf is usually accompanied by instruction in speech. This special education has been developed through more than 500 years of experiment and practice—it has reached a high degree of efficiency and should be made available to the little deaf child as soon as his sensory deficiency is discovered. There are relatively few of the deaf.

Second. The adult, born with normal hearing, educated as a normally hearing person, using normal speech, but having suffered some impairment of hearing, should study lip reading. He will, as a rule, make better progress if he gets hold of his lip reading while he still has a considerable amount of hearing. The only exceptions should be persons who have also defective vision.

Third. The child with incipient but progressive hearing impairment. Lip reading will conserve his speech, bring school and college within his powers, and when he has received intelligent vocational guidance, will assist him to maintain himself in his chosen calling as well as in his general social relationships.

The economics of early lip reading for all who experience impairment of hearing may be summarized accordingly, as promoting:

(1) A higher level of general health, through diminishing nerve strain.

(2) The mental discipline of eye training and alertness.

(3) Improved mental hygiene through happier social intercourse and self-expression, leading to fuller emotional satisfactions.

(4) A prime force in the readjustments so frequently indicated in hypacusia.

(5) A bond of understanding between patient and physician.

(6) Smaller expenditure for instruction to the adult.

(7) Reduction of the cost of education for the school child with impaired hearing.

Furthermore, do not incidentally lose sight of the fact that children consider lip reading a delightful game, that their hearing school-fellows admire them for their skill, and that adults find a genuine cultural stimulus in their lip reading classes.

In conclusion, the otologist renders a definite public service when he advocates lip reading to his hard of hearing patients, to their friends, to other otologists and to school boards. He can and should lend a hand to the qualified hard of hearing teacher of lip reading—and by *qualified* I mean not only the teacher well grounded in pedagogy and well trained in her specialty, but also one who has made her own

successful rehabilitation and who handles her own hearing problem intelligently and convincingly. The otologist who advocates early lip reading will not only serve his community by lessening human wastage, but he will also receive the reward of an incalculable gratitude.

Esthetics

THE FEMININE REVOLT

(From the *Kalends*, published by the Williams and Wilkins Co., of Baltimore.)

Possibly it is all too soon to prognosticate with any certainty whether the revolt of women, which appears to lean toward an acceptance of masculine standards, is to lead to any permanent results. Who knows whether it is merely a forerunner of a change which will overcome present inequalities and injustices (real or fancied), or whether it is a revolt of those who are merely selfish, sordid, and immoral? But one thing is certain, and that is, it does seem selfish when women boldly and baldly assert, "Life is for expression, not repression!" That way lies madness, for then it is that reason is overthrown and passions set free.

At times it seems as though many women are not trying to lift their status in society, but to level it; to think only of the fleeting moment and not of the future of the race. They boast of their modernity, their independence, and their greater moral freedom, and yet there is nothing very new about their demands for greater moral freedom—it runs through the warp and woof of the history of civilization. About the only thing new in the effort of the ultra-modern women is the mistaken conception of liberty as license—a license which former generations termed licentiousness.

But there is no need for pessimistic apprehension, for may it not develop that in time men will decide that they would rather be decent themselves than have their women indecent? May it not well happen that they will agree upon restrictions for themselves in order to restrain their mothers, sisters, wives, and daughters from indulging in the vices which for too long have been regarded as peculiar to men?

Whatever the outcome of the current feminist revolt, its effects will be transient indeed if its leaders continue to seek to force an adoption of the present moral code of men, because no fine, pure, sensitive woman could long survive in the smoky, groggy, and stifling air of the masculine moral level—and a decent woman is usually intelligent enough not to attempt to descend to it.

Lighthouse Observations

TOXIC REACTIONS CAUSED BY THE DERIVATIVES OF BARBITURIC ACID

The following warning as to the dangers attendant upon the too free use of certain sedatives, now being widely exploited, appeared as an editorial in the Journal of the Medical Association of Georgia, July, 1931:

"Physicians are being confronted by an increasing number of patients manifesting toxic reactions due to the derivatives of barbituric acid. The fact that these preparations produce toxic reactions and in some cases are habit-forming, is being overlooked. Available to the public is a large group of these preparations. Notably—barbital, phenobarbital, ipral, amytal, dial, phenadorm and neonal, which are accepted by the Council on Pharmacy and Chemistry of the American Medical Association, and allonal, which is not a Council-accepted drug.

"In general, the action of these drugs is sedative and hypnotic. They are eliminated by the kidneys, and produce no accumulative action. They produce a lowering of temperature, a slowing of respiration, and act on the peripheral blood vessels to produce a dilation. They have a selective affinity for the central nervous system and have an antispasmodic action.

"These preparations are universally used for their sedative and hypnotic powers. Hauptman introduced phenyl ethyl barbituric acid in the treatment of epilepsy, in 1912. Hofvendahl demonstrated that barbiturates are practical antidotes in cocaine poisoning. Finally, the derivatives of barbituric acid have gradually assumed a place of importance in the field of anesthesia.

"Toxic manifestations resulting from the use of these drugs are of 2 types: (1) A toxic reaction resulting from the therapeutic dose, apparently having no relation to the dose and due to an idiosyncrasy to the drug. (2) Poisoning from overdosage.

"Lundy, reviewing the literature prior to 1930, reported the following symptoms of poisoning from diethyl barbituric acid (veronal): (1) Cutaneous eruptions. (2) Coma or somnolence. (3) Disturbances of the eye. (4) Pyrexia. (5) Disturbances of the nervous system. (6) Disturbances of the respiratory tract. (7) Urinary disturbances. (8) Acceleration of the pulse rate. (9) Vertigo. (10) Cyanosis.

"The manifestations of toxic reactions vary from the mildest reaction of lassitude, malaise, drowsiness and giddiness, which many patients complain of a few hours after taking barbital, to profound coma or death. Meninger has described 2 general types of skin reaction: (1) Urticarial wheals and itching; probably a sensitization reaction. (2) A toxic reaction characterized by a measles or scarlatinal maculopapular erythema. Lesions are often present in the mouth. The onset of this rash, in the reported cases, has varied from 1 to 86 days after beginning use of the drug. The eruption usually disappears with a fine bran-like desquamation, and occasionally leaves a pigmentation of the skin. After this skin rash clears up, an attempt to renew barbital therapy usually produces recurrence of the eruption.

"Derivatives of barbituric acid have long been known to be *habit forming*. Sands classified those acutely poisoned as belonging to the manic depressive group, and the chronic users as being

of the constitutional and psychopathic inferior group.

"There is no intention to discredit this valuable group of drugs. However, it is desired to call to the attention of physicians their responsibility in prescribing these drugs. They should be obtained only upon prescription, and should be prescribed by their chemical names."

Current Events

(Continued from February Journal)

Dr. Hagerty: We will now take up the second subject on the program, and ask Dr. Waters to read his paper.

SPECIALISTS AND SPECIALISM. A PLAN FOR PROPER CONTROL BY STATE SOCIETIES

Edward G. Waters, M. D.,
Jersey City, N. J.

The practice of medicine in its varied phases and divisions reaches back into the dim eons of prehistoric days when man was mostly animal with an instinct of self and mate care. When we view problems of our own day, it is not fruitless to look to experiences of the past, whence often come gleams of ageless truths to light for us the paths of the future.

We may well recall that surgery, with its subdivisions, now the most prominent member of Mother Medicine's family, was the most despised handicraft of medieval days. Representing the greatest degree of scientific aptitude and development in modern therapeutics, it was but a few centuries since it consisted of a polygenous grouping of inept and incongruous practices.

However, the heart of the early practitioners of surgery was filled with the ideals of Hippocrates, and we early find our medical progenitors attempting to classify themselves according to competence and to codify their rules of procedure. They were apprehensively vigilant then, as now, to maintain and augment their accomplishments, and strove, as we do, to restrict them to the competent. Thus we find John Banister, in 1578, warning the itinerant surgeons not to avail themselves of his writings, in the following invective:

"As for you, O ye chaffe of the earthe, ye stinge of the godly, Ye impes of Hell and Children of Wrath, I say that you, under pretense of the Sacred Art of Medicine, devoure the sheepe of God's pasture, flea the laboures in his harvest, and deny your Lord the fruits of his vineyard—and I in these my labours from the depths of my heart renounce you, hoping assuredly, that from none of the flowers of this garden (his book) any of you shall take opportunity to suckle that whiche may maintaine the infection of your pestilent wretchedness hereafter."

Somewhat earlier we find a precedent established for the control of specialization in a decree handed down by King Henry the Eighth, in 1512. This edict prohibited unqualified men in the persons of mechanics, weavers, artisans, smiths, women, sorcerers, and witches from practicing surgery.

In the same century we find a decree enjoining the examinations of all applicants for the practice of surgery by 4 qualified persons, and practice in London necessitated permission of the Bishop of London or the Dean of St. Paul's Church. These

were the first of a number of similar ordinances promulgated throughout Great Britain, all doomed by the ungovernable times in which they were enacted.

Modern medical education has seen a transition from the poorly organized medical school, with its conflicting department programs and professorial jealousies, to true university teaching groups and the gradual assemblage of specialties as coordinated units. It seems inconceivable that, despite our recognition of opportunities afforded through the education and adequate training to certain groups of men, we have failed to attempt to classify or control those claiming special ability. The protection of the public is our duty and right, and until we exert such control we are not acquitting ourselves of our responsibility. We must face it as a fact that such control is needed and desirable.

Accepting this premise, we may consider institution of means for effecting what is desired. We know that there is a definite lack of restrictive requirements for practice of the specialties. Shall we make these requirements, we who know the needs, the limitations, and the exceptions? Or, shall we await the rulings of the aristocracy of an enlightened public opinion?

An era of specialization has arrived, and conditions now indicate return to a proper degree of intention. Our whole reaction to this new phase of medical custom has become more rational. Simply claiming to be a specialist does not make one so. Purporting to be a specialist should imply careful training in the basic sciences of medicine, especially anatomy and pathology, in addition to competence in the utilization of highly specialized technical procedures for the arrest and eradication of diseased processes.

Criteria are necessary in order to determine one's right to proclaim himself a specialist. Control must be exerted to enable public authorities and organizations to properly discriminate between those justly qualified as specialists and those not qualified. When a practitioner holds himself out as a specialist, he professes to his patrons and possible patients that placing themselves in his hands assures them special knowledge and skill in the field which their illness designates. They assume that he possesses an ability equal to or surpassing the knowledge and skill accredited his specialist contemporaries in similar communities. They likewise assume that the benefit of a specialist's judgment, based upon due care, training, experience and ability, will be theirs. The specialist is presumed competency in his art. He is expected to progress and proffer services at least the equal of his contemporaries in similar fields and in comparable places.

And for the patient, let this be said. The public, supposedly responsible for our laws, is interested in the welfare of its component individuals, and unless every community member is treated with diligence, skill and judgment in accordance with circumstances, the attending specialist is legally liable.

I have before me notes relating to the spread of specialist control throughout Europe. Among the group, one contains something applicable to us, and that is the explanation of the British Medical Association to its members, for promulgation of an act defining specialists and consultants in conjunction with the National Insurance Act. The scheme was advanced by the Association because it regarded extension of medical socialism as inevitable, and it preferred in that case to be first in the field, so that the change would be, in so far as possible, along lines acceptable to the medical brotherhood.

If there are any who question the probability of specialist control in this country, permit me only to record for you these facts. Italy in 1925, Hungary and Germany in 1926, Moravia in 1927, Vienna in 1928, England in 1930, as well as Norway, Sweden, the Province of Alberta, Canada; Turkey and Belgium have passed acts or have taken steps to control specialists. I need not remind you of the legislation already proposed in Michigan, New York, and our own state of New Jersey. If there still exist some who deny the importance of the matter and its imminence, then indeed does the myth of the ostrich become a fact.

THE PLAN

I

FORMATION OF A STATE COMMITTEE ON CREDENTIALS FOR ACCREDITING MEMBERS FOR SPECIAL PRACTICE

(1) Formation of State Committee; President and Secretary of the State Society ex-officio; Chairman of State Society Welfare Committee; Chairman of Board of Trustees; First Vice-President or President-Elect; Member of the State Board of Medical Examiners; and Chairman of the Committee on Post-Graduate Medical Education.

(2) Formation of County Committee, with subsidiary committees, for referring approved applicants to the State Committee on Credentials for action, to consist of 12 members, with the President, ex-officio. Members to be chiefs of departments or ranking attendings in the respective hospitals, and members of the colleges or groups now nationally accrediting their respective members for special practice, divided as follows: Surgery, 3; Medicine, 2; Obstetrics, 1; Eye, Ear, Nose and Throat, 1; Roentgenology, 1; Genito-Urinary, 1; General Practice, 1; Gynecology, 1; Pediatrics, 1.

In counties where the total membership is less than 50, the Subsidiary County Committee shall be constituted as to representative specialties, and limited in numerical content, in such manner as may be decided by the State Committee on Credentials.

II

REQUIREMENTS FOR ACCEPTANCE AS SPECIALISTS

(1) Those accepted by the respective groups of specialists gathered under the following societies and colleges: (a) American College of Surgeons; (b) American College of Physicians; (c) American Board of Obstetrics and Gynecology; (d) American Boards of Otolaryngology and Ophthalmology; (e) American College of Radiology and Radiologic Society of North America; (f) American Psychiatric Society.

(2) Accrediting by Recognition of Experience and Training:

(a) Men in practice 10 years or more who have been notably identified with certain branches of medicine and surgery and who are accepted in their communities by their fellow practitioners as competent in the field to which they are giving special attention.

(b) Men in general practice, holding a service in an approved hospital in a special branch of medicine, which service is sufficiently active to allow of attainment of a high degree of proficiency in that branch of medicine. The duration of the appointment must be not less than 5 years.

(c) Properly qualified and trained men, not classified in (a) or (b); those of ample hospital

and post-graduate training, in practice 5 years or more who furnish certification of qualifications acceptable to the State Committee on Credentials.

III

APPROVING HOSPITALS FOR TRAINING AND ACCEPTING CERTAIN POST-GRADUATE COURSES AS SATISFACTORY

(1) Approved hospitals for training: (a) Hospitals approved for internship by the Council on Medical Education and Hospitals of the American Medical Association (about 650). (b) Hospitals approved for residences in Specialties or Advanced Internships (325). (c) Hospitals approved by the American College of Surgeons and the American Hospital Association.

(2) Post-Graduate Courses in Specialties: (a) At least one academic year devoted to the study of special fundamental studies of a single medical subject, and subsequent advanced clinical practice. (b) Post-graduate course of sufficient scope, as determined by the State Committee on Credentials, as will equip men to adequately cope with the complexities of diagnosis and therapeutics in the chosen field.

IV

DISTRIBUTION OF INFORMATION AND PUBLICITY REGARDING ACCREDITING OF MEMBERS FOR SPECIAL PRACTICE AND THOSE SO ACCREDITED

(1) Newspaper notices. Form notices approved by the State Committee on Credentials.

(2) Office publicity. Office placards and pamphlets on such subjects as "Choosing a Specialist".

(3) Display of certificates issued by the State Society through the State Committee on Credentials for Special Practice.

(4) Radio talks and magazine contributions sponsored by the State Committee.

(5) Establishment of "Central Information Office" in each county for distribution of information to lay persons seeking it.

POINTS FOR EMPHASIS

(1) Absence of restrictive legislation—effect to be largely through purposeful, planned education of the public to what has been done for its benefit and protection.

(2) Lack of attempt to rule on the individual's desire to practice as he sees fit—positive position of the society in designating those who couple the desire with the ability to practice.

(3) Prevents any member of the county or State Society to label himself a Specialist unless he is one in fact.

(4) It permits the public to acquaint itself with a protective mechanism for its benefit through properly supervised medical publicity channels.

(5) It permits the public some tangible ground on which to choose intelligently a specialist, and *per contra*, prevents the incompetent and ill-trained men from advertising themselves as "Specialist".

(6) And, to reemphasize—it does not restrict any man *not claiming to be a Specialist* in practicing as he chooses.

Thus, the public is not limited in its personal choice, and physicians as a group are not repressed or curbed in their practice. But, the public will have the means of knowing who is and who is not permitted to use the title of "Specialist", and the physicians are compelled to merit and deserve the title of "Specialist" if they wish to use it.

Dr. Hagerty: We will now take up the third

subject on the program, and ask Dr. Harris to read his paper.

CAN THE QUALIFYING AND CERTIFYING OF SPECIALISTS BE CONDUCTED BY NATIONAL EXAMINING BOARDS AND THE COLLEGES OF SURGERY AND MEDICINE?

Dr. Thomas J. Harris (New York City): Mr. President and members of the Tristate Medical Conference: I want to express at the outset my very deep appreciation, to the Executive Secretary of the New Jersey State Medical Society, for permitting me to be present this morning. I also want to confess a very great and lamentable ignorance regarding the work of this most excellent Conference. I wonder if I am the only one from New York who is as ignorant as I am about this matter. In spite of such admirable representatives as we have here this morning, it is my fear that this ignorance is very widespread, and I feel that it behooves me as one from New York to do what I can to spread the information because the work of this Conference and its objects are of the very highest and I have not words enough to speak in commendation of it.

My second aside, and yet principal, remark is a very deep apology for coming here without any written paper. I did not understand that this was required. I have listened to those 2 most erudite papers this morning and I feel my own handicap in attempting to speak informally.

The subject which has been opened up by Dr. Waters is one in which I am deeply interested. I believe he referred to the fact that most of us are considerably older than he, and it is certainly a very high mark of approval for us to have a young man to come in and grasp these subjects and present such a plan for the solution of the problems. I haven't sufficient words to express my appreciation. He has told us, and I do not need to develop that, that specialism is not a new thing, in its broadest sense. And yet, after all, as you and I view it and know it, specialism is a development of recent years. In fact, you who have been practicing for the last 30 years have seen its rise. You will recall clearly that the same need of regulation was required in undergraduate medicine 30 years ago, or thereabout. How lamentable the preparation of the student was, and what a fine result has been accomplished in our Class A colleges by the work of the American Medical Association through its Council on Medical Education! The same need, the same thought and the same work is required for the solution of what I regard as one of the biggest problems that confronts medicine today. I remember that before the War we who were engaged in otolaryngology were beginning to see the need of some recognition of this problem. The National Societies met in this very hotel as early as 1905 to appoint a committee to attempt some solution, some way of creating a control of the unprepared specialists. We had various meetings from year to year, with no results whatever, and it remained for the War to drive the fact home to us that the country was full of incompetent men practicing in our specialty. It was my lot during the War to be in charge of the School of Otolaryngology at Camp Greenleaf, Georgia. We found that fully 75% of the men who came to us with the statement that they were practicing otolaryngology throughout the country were incompetent and we could not pass them.

While our specialty may be more seriously at fault than some others, I think it would be a fair example for all the other specialties. Following the War another attempt was made to arrive at some

solution of this great problem. There sprung up, as you are well aware, a commercial spirit, so that men felt that here was the opportunity to make money, and particularly in our specialty many of them had the idea that they could make more money than in any other department of medicine. Down to 1924 nothing had been done about it. In 1924, as a result largely of the leadership of Dr. Shambaugh, of Chicago, with the backing of the American Academy of Ophthalmology and Otolaryngology, a Board was organized by the 5 national societies having to do with otology and laryngology to provide for 10 men to examine applicants who wished to be certified as specialists in otolaryngology. Ophthalmology preceded us and, as Dr. Waters has pointed out, the other specialties have in recent years followed, particularly gynecology, until the specialties are virtually all covered today by national examining boards. It has remained for the last 5 years, for organized medicine as a body to realize the necessity of doing something to solve the problem.

Dr. Waters has referred to what has already been done on the other side of the water, in France and Hungary, and above us in Canada. A most illuminating paper by the Executive Secretary, Dr. Reik, read before the Delaware State Medical Society this autumn, has pointed out what to me are very startling facts, namely, that an attempt at the solution of the problem is being sought today in many of our state medical societies by appeal to the state legislature. In other words, there are 2 possible ways of trying to accomplish what is such a very vital necessity: namely, to do it voluntarily, or to do it through legislation. To quote Dr. Reik, there have been 2 bills introduced into the New Jersey State Legislature in the last few years; a third bill was about to be introduced but was shunted, due to the influence of some medical man connected with the legislature directly or indirectly. That points out to us how acute the situation is. Dr. Waters has also admirably stated that such legislation would be very serious for our profession.

Reference has been made to what is being done in New York State. At the risk of repeating or reviewing the matter, the New York Academy of Medicine awoke about 2 years ago to this same situation that we are discussing this morning. Its membership, representing about 1900 resident members and a corresponding number of non-resident members, consists of what is known as Fellows. Any man passing the Committee on Admissions and voted in by the Academy has become a Fellow of the New York Academy of Medicine, with the privilege of belonging to any Section whatever of the Academy. The impropriety of this forced itself upon us because we felt that many men were incompetent to make such a connection. As the result of a good deal of consideration the solution of the problem was met in this way: that recently 2 classes of membership have been established, one a class of Membership, and the other a class of Fellowship in a Section. Any man who is capable of passing the requirements of the Admission Committee becomes a *member* of the New York Academy of Medicine. The title of Fellow will end with those who now hold it. A member who wishes to become a Fellow in any particular Section will make an application to that Section, the Section will refer him to an examining committee, the committee will pass on his qualifications and if they meet the requirements of the committee, he will be recommended and approved for Fellowship in that Section in the New York Academy of Medicine. This plan, which is just being put in

operation, is one, as Dr. Reik has very properly pointed out, that is applicable to the State Society. It seems to me that we can quite properly consider it and with proper modifications it can be adopted by the Medical Society of the State of New York, and by other state medical societies as well.

I stand absolutely with what I think is the opinion of you all, that a *voluntary* control of specialism is the all important thing—not a *legal* one, for that is what we want to prevent, and yet you, in New Jersey, face legislative action. Perhaps some of you are members of the House of Delegates of the A. M. A. If so, you will remember that last June a bill was introduced by a Delegate from Michigan in which he suggested legislative action on the specialties. The final action, after much discussion, was to refer the whole matter to the Committee on Hospitals and Medical Education with instructions to consider it and to report a suitable plan of operation. As Dr. Reik pointed out in his Delaware paper, there was a clear contradiction in the 2 instructions because it presupposed, in the resolution, that the Council would adopt some plan and that would be the end of it. We are very hopeful, however, that the House of Delegates of the American Medical Association will see the light and do what we feel is the only reasonable and proper thing, namely, to act, as Dr. Waters has pointed out today, through the voluntary method.

What is the method that has been used by the American Board of Otolaryngology? Attempting to answer the question, as put in the title assigned to me—Can the National Boards Undertake and Carry Out This Work of Controlling the Specialties and Specialists?—I firmly believe that it is possible. The American Board of Otolaryngology in its 7 years of organization has examined between 1900 and 2000 men, or has issued that many certificates of proficiency. We estimate that there are, some 4000 men practicing this specialty in the country. If we examine another thousand, as we hope to be able to do in the next few years, we shall have examined the controlling mass of those who are practicing otolaryngology.

How have we been succeeding in what we are doing? It is too early to answer that question except in a tentative way. I believe that interest is being felt all through the profession. That is one of the points which I shall discuss regarding Dr. Waters' paper in just a moment.

A point was made as to the distribution of information, whether it is wise or best to have it broadcast so widely as has been suggested. The profession should be educated to consult certain lists to which they have access for names of men to refer their patients to, who have received the Board's certificates. This will go a long way toward accomplishing the result we are seeking. I heard last summer on the Pacific Coast of several persons who had gone out there during the winter and who insisted first upon knowing whether a particular throat man to whom they had been referred held the certificate of the Board of Otolaryngology before they would put themselves in his care. We have gotten a long ways ahead when the public does that sort of thing.

The voluntary method of procedure can be accomplished in an indirect way by enlisting the support of the hospitals. If the men who are connected with the hospitals, who are on the hospital boards and have to do with the administration of hospital affairs, will coöperate to the extent of demanding the certificate of the various Boards before promotions will be permitted, you

have the young men exactly where you want them. Now that is being done to a considerable extent. For instance, it has been done so frequently that young men come in to me and frankly tell me that they want to take the examination and get the certificate of the Board in order that they may be promoted in the hospital. When we get the whole profession behind us in that way I think we have made it almost certain for the voluntary approach that we have been describing.

You may want to know what our requirements are. They are very largely what Dr. Waters has pointed out. If I may read from the preamble of our organization: We are organized "to establish standards of fitness to practice Otolaryngology;

Second, To investigate and prepare lists of medical schools, hospitals and private instructors recognized as competent to give the required training in Otolaryngology;

Third, To arrange, control and conduct examinations to test the qualifications of those who desire to practice Otolaryngology and to confer a certificate upon those who meet the established standards.

The object is to elevate the standard of Otolaryngology, to familiarize the public with its aims and ideals, to protect the public against irresponsible and unqualified practitioners, to receive application for examination in Otolaryngology, to conduct examinations of applicants, to issue certificates of qualification in Otolaryngology and to perform such duties as will advance the cause of Otolaryngology."

Now, how true is this? How far do we go, apart from what Dr. Waters has pointed out in his admirable classification? The point of view of examiners is as follows:

"Examinations are designed to test the candidate's fitness to practice Otolaryngology, and will be conducted in a thorough manner. Yet it will be the aim of the examiners to be reasonable and broadminded, avoiding on the one hand an unduly exacting standard above present available facilities for preparation to practice Otolaryngology, and, on the other hand, a laxity which would defeat the whole purpose. Thus an older practitioner may not be minutely versed in certain of the newer details of anatomy, physiology, pathology, etc., which he may once have known, yet his grasp of the science and art of Otolaryngology, and his fitness and competence to practice may be of a high order. On the other hand, to expect and to demand of the recent graduate the mature, well balanced judgment and sagacity of the older practitioner, would be equally unfair. The examination will be adapted to both classes. This movement is undertaken for the purpose of raising the standard of Otolaryngology. Whenever applicants fail to pass the examination, it will be the desire of the Board to induce such men to make an effort to overcome their deficiencies, and the Board will gladly, when requested, make suggestions as to what courses should be pursued by such applicants to enable them to establish their fitness."

We have divided the applicants into 3 groups according to the years they have been practicing the specialty. The first class of men consists of those who have been practicing Otolaryngology over 15 years; the second class between 7 and 15 years; and the third class under 7 years. Our examinations are adapted entirely to these different classes. For the man who has been in practice as long as 15 years, it is very much like the second group of Dr. Waters'. They are the men whom we certify if their moral standard is such as we feel it should be and where we recognize that

they are safely practicing the specialty. No form of examination is required from them at all. In the group of men who have been practicing from 7 to 15 years, we want to know that those men have gained such clinical knowledge, good judgment and capability of practicing the specialty as to render them acceptable to the rank and file of us all. Finally, we have the beginners who have specialized less than 7 years. We feel that with the great advance in training in our medical schools those men should know their anatomy, physiology and such technical subjects in a way to make them outstanding otolaryngologists.

We feel that we have accomplished much in the years that have gone by. These examinations are held 2 or 3 times a year throughout the country. We met this year in Los Angeles in June. We met in Philadelphia in the same month, and also in Indianapolis in September. We shall meet with the A. M. A. in New Orleans next May.

I think as large a problem almost as we have just stated, namely establishing methods of examination, is the question of how to furnish the facilities for this work. The number of medical schools and of post-graduate facilities is very limited. The New York Academy of Medicine has undertaken to attempt some solution of that problem. Dr. Waters indirectly touched on the rôle that the hospitals can play in giving instruction. Most of us have served on hospital staffs as internes and you know as well as I do how little instruction we got, how little actual training from our chiefs. The thought of the New York Academy of Medicine is that each hospital will have its group of rotating internes who shall have a broad general training from the visiting men themselves, and that out of the 24 months of such work there is bound to develop some man, or perhaps 3 or 4 men, who have shown special ability either in general medicine or surgery, or some special branch of medicine. Those men will be received back into the hospitals as residents and will be given opportunity of perfecting themselves in their specialty, being gradually promoted from juniors to seniors. During their last 4 or 6 months they will be virtually acting assistant surgeons or physicians, with all the opportunities and privileges of operating that would fall to the duly appointed man. Then when they go out into the world to practice we feel they will be a credit to themselves and to all concerned. That is the plan that has not yet been put into operation but it is a part of the plan that the Academy feels is necessary in order that we may be able to furnish facilities for the requirements that we are desiring to put into operation.

In conclusion, may I say a word about Dr. Waters' plan. It seems to me at first blush, speaking very frankly, that it represents a considerable amount of machinery which, if it can be avoided, would be to the advantage of everybody concerned. If it is necessary for every state to organize its state committee, and every county its county committee to pass on qualifications of specialists, all well and good, but it does seem to me that with these national examining boards all this would be unnecessary, if the medical societies will recognize the national boards and give them their support and coöperation. How this can be best brought about will require consideration. I see nothing at all to prevent the possibility of the state, through its certificate, coöperating with the national examining boards. It is quite possible for the State Medical Society to stipulate that the Board of Ophthalmology, or Otolaryngology, shall be followed in their requirements by the State So-

ciety and that they will be prepared to issue state certification to any person holding the certificate of the Board. That, of course, is something that requires development.

As to the suggestion that special Boards act as certifying bodies, I am a little uncertain about the possibilities of the American College of Surgeons doing this. You will remember that is a body that is a law unto itself and it is not a voluntary matter about becoming members of that society. It is a question whether Dr. Franklin Martin or someone else will take you in. What we want to do is to approve every man who wishes to practice a specialty and is *competent* to do so.

In the final word, I do want to say that Dr. Waters' paper and the way in which he has developed it deserves our hearty approval. As to the importance of controlling the specialties and the possibility of controlling them through the national examining boards, I should say this is decidedly to be desired, and I believe quite possible. Speaking for the American Board of Otolaryngology, that body would consider it a very great pleasure and a privilege to coöperate with any or all of the State Societies in following out this plan that has been so ably presented today.

Luncheon was served at 1:30 p. m., after which discussion was resumed.

DISCUSSION

Dr. Henry O. Reik (Atlantic City): It is quite possible that some of you did not receive the program issued in advance of this meeting. Consequently, I would like to explain how and why it was prepared in this manner, and then, with your permission, to guide the hoped-for discussion toward a point where this Conference may take some specific action.

First, may I cite what has happened in New Jersey in the matter of legislation bearing upon specialism. The State Assembly of 1929 had under consideration an Act to Regulate the Practice of Surgery (A. 290), which, briefly stated, provided that no one could practice general or special surgery without first complying with all the requirements of the present Medical Practice Act and then, in addition, spending from 2 to 4 years in special preparation for practice of surgery or any one of the surgical specialties, and giving proof before a special board of examiners that he possessed the requisite skill to enter upon such surgical practice. We had to admit that the bill was based upon a principle fundamentally sound but argued that in the form presented it was a highly idealized proposition for which neither the profession nor the public was prepared at that time. If enacted into law, it would have drawn a very sharp distinction between the practitioners of clinical medicine, on the one hand, and the surgeon, gynecologist, urologist, rhinologist, etc., on the other. The "family doctor", so-called, would have been prohibited from performing any major operation and many so-called minor surgical procedures. To practice general surgery, that law would have required one (in addition to securing the regular license to practice medicine) to have had at least 3 years of special surgical training in a hospital of 200 beds; and, similarly, for the special branches of surgery, one would have to meet requirements that ran from 1 year of post-graduate study in ophthalmology to 3 years in gynecology, with specialties like genito-urinary surgery requiring 2 years, otology 1 year, etc. We defeated that Bill, but we encountered the argument, naturally, that in many appearances before

the legislature prior to that time we had always opposed laws designed to establish any of the cults by insisting upon *higher education* for them, but, when an Act was applicable to us, we objected to a provision for *higher qualifications*. Of course, that was not particularly difficult to dispose of, but it was a bit embarrassing to those of us who had to defend our position. The same Bill appeared again in 1930, and it then acquired an even more favorable response from members of the legislature, but still we were able to defeat it. The past year we anticipated having a harder fight, but were unexpectedly fortunate in that the Senator who was asked to introduce it happened to be very favorably inclined toward the medical profession, and after consultation with a colleague in the Senate, who was also a physician, the document was suppressed. For saving us last year, the Medical Society of New Jersey owes thanks to the Senator from Sussex County—Dr. Blase Cole—who, I may incidentally say, has been, during the past 7 years, the chief reliance of the medical profession in the legislature of New Jersey. I do not know what the probabilities are for that, or a similar, Bill being introduced at the coming General Assembly in January, but there is a possibility, of course, of its reappearing.

About the time that the Bill referred to made its second appearance, Dr. Hartwell made his Presidential Address to the New York Academy of Medicine, in which he suggested a means for meeting the situation and avoiding the enactment of a law to control that problem in New York. Less than a year ago, Dr. Hartwell addressed our Fifth Judicial District Meeting, in Atlantic City. He and his Academy associates in this matter have now gone much further than was indicated in the Presidential Address to which I just referred, and which covered merely a classification of Academy members, into *Members* and *Fellows*, the latter being qualified specialists. Recognizing the fact that post-graduate teaching facilities in this country are not now sufficient to provide education for all who might want to qualify for practicing a specialty, they are engaged in establishing such schools. In my opinion, Dr. Hartwell's work has been of the highest character and of the most promising nature, and I believe it will in due time be recognized as one of the most important professional happenings of this period of medical history, beneficial as it certainly will be to the profession and the people. He told me personally that the trying out of his scheme in the New York Academy of Medicine was with him a preliminary procedure, where he hoped to show that it could be successfully handled, and, in consequence, it would be taken up by and adapted to the State Society.

While Dr. Hartwell was considering his plan, a notice came from the American Medical Association that a representative in the House of Delegates, Dr. Moll, of Michigan, would submit a resolution at Philadelphia, in June, asking for the appointment of a special committee to consider some plan for meeting and disposing of this question of specialists and special practice. The New Jersey State Medical Society met just a week in advance of the A. M. A. meeting in Philadelphia, and at our meeting the Delegates from Hudson County—which is the second largest county in this state, and embraces Jersey City—announced that they would like to have the Association consider a plan which was thought to be an advance upon the plan submitted by Dr. Hartwell, and which was applicable to the State Society's type of organization. Dr. Hartwell's plan in its present form

probably is not applicable. Just after that resolution was reported at our Society meeting, Dr. Waters worked out this plan which he has presented today for your consideration. His is a step in advance of the Hartwell plan, or, possibly it would be better to say that he advances a step, by making it adjustable to the state societies; realizing that there are marked structural and membership differences between an organization like the New York Academy of Medicine and one like the New York State Medical Society.

As I look at it, there has been an increasing necessity for the medical profession to do something toward solving this problem, for the benefit of both the profession and the laity; otherwise, if we fail to provide a solution, I fear that some such Bill as was presented to the New Jersey Legislature 3 years ago and 2 years ago will be not only again presented, but will be enacted into law. I think we can probably raise enough political influence to defeat such a Bill repeatedly for, perhaps, the next 5 years, but whether that opinion be right or wrong, I think it is wiser for us to devise a plan that will give the public, *not only what it wants but what it has a right to demand*. We generally answer complaints lodged against the profession concerning incompetent specialists, by saying that there are many thoroughly competent specialists, more than a sufficient number to meet the public's needs; but we know that the public has not at the present time any reliable facilities for ascertaining who are competent specialists, for, as a matter of fact, we have not, ourselves, such facilities. If I were taken ill in some distant city, I think that even I might have difficulty in selecting a specialist, despite the fact that my opportunities to acquire knowledge of specialists in all lines, all over this continent, have been of an exceptional character. We, you and I, know the names of a number of specialists, or can find them in a directory of any city, but we know next to nothing as to the qualifications of most of those men who list themselves as specialists.

Those of us who have given thought to this question of having the State Medical Society act so as to prevent the legislature from taking action, have been assuming that if the State Society undertook to ascertain the qualifications of specialists, and to certify to their ability, and to give the public information, upon inquiry, as to who are the competent specialists in any given line, we could call upon certain national organizations to make the examinations, to determine the qualifications, and to certify those who met all requirements. It would seem reasonable, I think, to say that a man who is a member of the American College of Surgeons should be considered as a qualified surgeon. Up to the present time, at any rate, that is the highest standard of qualification we have recognized. The American College of Physicians, of more recent origin, should have its stamp of approval recognized as sufficient to certify those who would qualify as specialists in medicine, commonly spoken of as internists.

I was one of the group, I think, that long ago took part in organization of the first of these national boards, the Board of Ophthalmology. I was also among those who established the Board of Otolaryngologists. Then, there have come along the Boards for Gynecologists and Obstetricians, and I doubt not other specialist boards will shortly be formed. We have been assuming that we could call upon those boards along with the Colleges, of Surgeons and Physicians, but no one seems previously to have thought of asking the Boards whether they would undertake such a responsible

task. When we were asking Dr. Waters to present his program here today and have this question discussed, I thought of asking some one who could speak with some degree of authority, as to the willingness of one of those Boards, at least, to do what we want them to do; that is, to take upon themselves the responsibility of ascertaining the qualifications of physicians who desire to practice a specialty, and of certifying such applicants as prove their competence. From long association with Dr. Thomas J. Harris, recognizing him as one of this nation's foremost practitioners of otolaryngology, one of our specialists who is universally known and universally loved, I invited him to speak here today and he has answered the question already by saying that he believes the national Boards would willingly undertake such responsibility. If that be so, the machinery necessary for certifying specialists is to a large extent already set up.

With that explanation as to why this program was arranged in the form presented, I hope the discussion will evidence a desire to have the organized profession take such action as will meet the situation, and thereby prevent legislation which might prove disastrous to the profession, and little short of that to the people.

It may not be necessary for us to adopt here today any specific plan, but it may be helpful to put the stamp of approval upon the plan submitted by Dr. Waters, with the understanding that it may be modified or altered in minor particulars to suit varying conditions in different localities; a form of approval to which I am sure he would not object.

Dr. J. B. Morrison (Newark): Those of us who are members of the State Medical Society of New Jersey know that in the earlier years of our country, the privilege of conferring upon certain persons the degree of M.D. was given to our Society by the King of England. We did not lose that power until about 1850, when, very unwisely, we turned it over to the state. Since then, the granting of license to practice medicine in New Jersey has not always been free from suspicion of irregularities.

The question of controlling specialists now comes up and you can understand why we should fight shy of any control by legislation. If we controlled the licensing of physicians in the manner of New York, even, things might be different, because such a subject as this would be referred immediately to the Board of Regents; but our licensing body, the State Board of Medical Examiners, is a "mixed" Board, including representatives of homeopathy, osteopathy, and chiropractic. We wish to keep this matter away from the legislature—as far away as possible.

This Bill, of which Dr. Reik spoke, originated in the Legislature of New Jersey, and is being pressed there for enactment into law. If we say that we, some 2800 members of the medical profession, are providing the means for determining the fitness of those physicians who ask recognition as specialists; and are providing certificates of *fitness* for bestowal upon those who merit such endorsement by the ancient and honorable Medical Society of New Jersey, thereby providing necessary protection for the people of this state; and are providing means for keeping the public fully informed as to specialists upon whom our certification has been bestowed; I am sure we can prevent legislation upon this subject, and we will have rendered service of incalculable value to the profession and to humanity.

Dr. Harry W. Albertson (Scranton): I am extremely interested in this part of the program and it is the one reason why I came 200 miles to attend this meeting. I am interested from several standpoints; being a member of the Board of Education and Licensure of Pennsylvania is one; being a member of the Association of Medical Boards of the United States is another; and, preparing to take part in a program similar to this in Chicago during the week of February 15, is yet another; and, in anticipation of that meeting, I have certainly collected here today a lot of information.

With all due respect to Dr. Waters' plan for the state of New Jersey, I think every community probably has its own problems to work out, and I can readily understand some of your problems, after listening to Dr. Reik and Dr. Morrison. The one thing that I have wanted to bring out—and it was my main idea in coming down here—is that we should keep this matter entirely out of politics. I believe that a man who starts in the practice of medicine should first have an apprenticeship. Dr. Harris said that his organization requires that the specialist have 1 year of general practice, at least. I think it should be 5 years. A man will make a better specialist after he has had 5 years of general practice. I am very much against turning men out of college directly into self-styled specialists. With due respect to Dr. Waters and to conditions here in New Jersey, I feel that we would all be very much better off if this were a national affair. I feel that we of New York, Pennsylvania and New Jersey, representing such a very large part of the medical population of the United States, should have some influence with the American Medical Association when these matters come up for discussion in its House of Delegates, as they probably will in New Orleans, next spring. I believe our efforts should be bent toward co-operation with these national Boards of the several specialties, as Dr. Reik seems to have prepared the way for, rather than toward, any state group for determining qualifications. The one objection to Dr. Waters' plan, as I grasp it, is the provision for examining or approval Boards composed of one or more from each of the recognized special branches of medicine and surgery. If I am correct, the objection would be that when you get a Board of that kind you have a multiplicity of men, some of whom most surely will not be competent to fill such a position. Besides, you must not overlook the matter of local prejudices and favoritism.

Dr. Edward G. Waters: In the composition of that Board, it is required that its members shall be members, already, of the national accrediting bodies.

Dr. Albertson: If that is done and adhered to, well and good, but I am still skeptical, and I would say, further, you had better leave the general practitioner out of membership on such qualifying Boards. They should be men capable of holding examinations in particular specialties.

I hope we can keep this thing where a man, desiring endorsement as a specialist, will have first to secure the degree of M.D., before anything else, and—that he know better what the degree of M.D. stands for, and that he may learn something of the *art of medicine*—have to show that he has engaged in general practice for at least 5 years, before he applies for the right to specialize.

I am very anxious to see something done that will put a stop to the *self-styled specialist*. The people at large cannot be expected to know how

to discriminate among those who call themselves specialists. But, if we set up standards, and certify those found competent, a layman can then select a specialist with the knowledge, at least, that he has the approval of his associates in the medical profession. So, I say that all of us should now get back of this movement, which will be for the betterment of everybody concerned.

Dr. Walter F. Donaldson (Pittsburgh): I believe, Mr. Chairman, that I see in the representative form of government which we have in our medical organizations in this country—component county societies in the state, and constituent state societies in the American Medical Association—a possibility of relating the 2 plans we have heard discussed here today into some form of control by state societies as well as by the American Medical Association. In our own State Society we have various scientific sessions which are more or less rotating in control. They choose, each year, a Chairman and a Secretary, the retiring Chairman becoming a member of an Executive Committee of 3 so that the 3 last-retired chairmen form a nominating committee of that section. That same rule applies in the American Medical Association. I can see how, if we were able to adopt this plan of Dr. Waters in some modified form, giving every consideration to the plan discussed by Dr. Hartwell, there might be constructed some satisfactory form of control. Our scientific session officers are practically all representative members of these special national scientific organizations. I just drop that thought as a possibility.

One other thought, which has not been mentioned yet, I would like to interject. That relates to the great body of physicians that we represent here today, at least those who are officers and members of the Tristate Conference. We represent the general rank and file of the members of the 3 State Societies and I think we will all admit that this Conference has contributed considerably to the more favorable position in which we now stand with the public. The costs of medical care have been greatly increased by the specialties, and in developing so many specialists helping to eclipse the general practitioner, whom we will all admit is the basis of our proper relations with the public. So that we, forgetting all the interest of the specialist at this time, should be considering this very plan as a possibility of restricting to a certain degree special practice, and turning a considerable amount of practice that now goes to the specialist—largely because the people ask for it and seek it—back to the general practitioner, thereby enhancing his standing with the general public and, of course, redounding to the credit of all organized medical societies.

Dr. George N. J. Sommer (Trenton): As a member of the State Society of New Jersey, I am free to admit that there is need of some form of control of special practice. Basically, we have to admit there is a big difference between science and art as exemplified by the average physician whom we meet in his daily work. Many of us fail to realize that John Smith, as a case of appendicitis, is quite a different person from John Smith, who has appendicitis, and because of our lack of appreciation of the many sides of this illness, we may fail in the care of John Smith. If we aim to control the practice of specialists, we will have to consider one very important thing; that is, the training which the specialist of today is getting to fit him for practice of a specialty. Koehler, a long time ago, said he believed that no man should

practice a specialty unless he had a background of at least 15 years in general medicine, part of which was in his chosen specialty. I am sure that the 10 years I spent as a general practitioner—15 really—part of the time acting as an assistant surgeon in a hospital, have made me a safer surgeon than the man who has had 2 years of hospital training and hopes to render that special service to the public.

To back up this particular statement, in recent years there has come a new type of medical consultant, and that is the medical consultant to the surgical or special services of our hospitals. I will confess that in my surgical service I demand from my medical colleague, who is on duty at the same time, a great deal of his time in the survey of my surgical patients. I also confess that he has done me this justice, that he has been highly gratified that I have submitted to him my problems. That does not mean that I am not able to conceive the general medical problems of my patients, but I feel much more satisfied to have the backing of the medical consultant in determining the proper time to perform certain surgical procedures. We use our metabolist a great deal, as he prepares all our diabetics and high blood pressure patients for surgical procedures. The cardiologist has not been overlooked, and he has been a great service to me in cases of toxic goiter. That being true, it would seem to me that 5 years would not be quite adequate to fit a man for special work. There is no doubt that 5 or 10 years devoted to work under properly qualified specialists, at the same time carrying on a certain amount of general practice, which he really must to earn a living, would be time well spent.

Regarding Dr. Waters' plan, it seems to me a little bit complicated, and I would suggest that it be simplified. Personally, I am inclined to favor nationalization of the problem. Of course, I can see where this plan might work out all right in New Jersey, but I am inclined to recommend careful consideration of that point.

Dr. Joseph S. Lawrence (Albany): I would like to ask 4 questions, if I may. First, how would you prevent any man from calling himself a specialist, if he chose to do so? Secondly, will hospitals always have authorized specialists available for appointment? Hospitals must appoint men to their clinical services and, of course, the large hospitals have many applicants for such service, but smaller hospitals, in smaller localities, must delegate men to certain services. Sometimes they have a rotary service but often it becomes a permanent service, and after a while a man who has been delegated to a particular branch of service in a clinic, is supposed to be familiar with that work and he automatically becomes a specialist. He may find his practice becoming limited and be obliged to become a specialist.

Third, how will the number of specialists be limited? After all, the object is to prevent a flood of specialists, to limit the title to worthy men, but unworthy men are still doing work and in many instances at a lower rate than the well trained man would do it, or at a lower rate than he would be entitled to charge.

Fourth, what adequate facilities will a national Board have for proving that the applicant has the required qualifications?

Dr. John F. Hagerty (Newark): When this Bill to which Dr. Reik referred was presented to our state legislature, it was taken under consideration by the Welfare Committee of our State Society,

and the Chairman appointed a committee to investigate this subject, of which committee I was made Chairman. The committee opposed, very strongly, the Bill that had been introduced and I am afraid that because of the vehemence of opposition to that Bill, we might be supposed to be opposed to the whole scheme of specialism. That is not true, of course, but consideration of this measure did present to us many angles of this subject, some of which have not been referred to at all and some of which, to my mind, no plan can fully cover. What about the moral side of the subject? No amount of education, or experience, or friendship with another man, will fully qualify a man to hold himself out as a specialist in every instance. A man may be exceedingly dexterous and well educated and yet be morally bad. Our principal trouble in large cities, after all, is with the men who find it easy to justify operations. We know very well that many operations are being performed in large cities that are not imperatively necessary. There is a moral side to this which cannot be dealt with or covered by any plan. Now, after all, a simple plan might take care of the situation. It occurred to us, and it was so mentioned in our reports, that it seems strange that the American College of Surgeons, an organization which issues certificates to its members stating that they are fully qualified, morally, intellectually and professionally, has not gone farther and endeavored to straighten out this very vexing question. But it has not done so, and will not do so. Dr. Waters has a splendidly conceived plan, and it should not be a difficult matter for our State Society to set up credentials committees, made up of representatives from every county in the state, which committee might supply the best judgment of those who are holding themselves out as specialists. Who is better able, than representatives from every county of the state, to judge of the fitness, moral and intellectual, of those who are holding themselves out as specialists? The fact that certain men are, in their opinion, justified in practicing a specialty, might well be published. It seems to me, that would cover the situation very well, and in a way that could not be covered by any certificate of training. To my mind, the moral side is a very large one. That, in fact, is what has involved us in an investigation of this subject. Many men are morally at fault, when they assume the title of specialist, and many of those men, working as specialists, are not justified in practicing a specialty and they are charging fees that they are not justified in charging.

I wrote to the American College of Surgeons, asking why the College did not take some steps to correct these abuses. After a period of 6 months, I received a letter from Dr. Martin, which is not much of an answer. It is as follows:

"I have read with much interest your letter of October 6, with reference to devising a method for the recognition of surgeons and surgical specialists. This subject is one in which the College has been interested since its inception, and was one of the reasons for the founding of the American College of Surgeons.

You are familiar, I am sure, with the necessary qualifications of Fellows of the College, and you will see in the By-Laws that one of the objects of the College was stated as 'to establish a standard of competency and of character for practitioners of surgery'. It is felt that the procedure adopted in considering candidates for Fellowship and the requirements for this Fellowship, accomplish this object. The specialties under which Fellows of the

College are classified are General Surgery, Abdominal Surgery and Gynecology, Obstetrics, Ophthalmology, Rhinology, Otolaryngology, Urology, Orthopedic Surgery, Proctology and Bronchoscopy.

The use of the letters F.A.C.S. after the name of Fellows serves to indicate their Fellowship in this organization. This should constitute no invidious comparison with other members of the profession, as any surgeon or surgical specialist is free to apply for Fellowship, and will have it granted provided that he can fulfill the requirements. In addition, every opportunity is taken at the sectional meetings, at the Clinical Congress, in the literature, and by the work on Hospital Standardization, to inform the public as to what this Fellowship implies.

The problem here, as in so many other fields, is fundamentally one of education of the public and of the profession itself, and in time the problem will solve itself. It is not felt that it would be feasible or desirable for the College to go out and put a stamp of one kind or another on all doctors of medicine, and I am sure that such a procedure was not in your mind. Nor is it felt that the matter should be a subject of general legislation at the present time. Even were good legislation able to regulate this subject, it is not felt that there is now available enough information on which to formulate laws that would be just, equitable and efficient. In some communities it may be possible for the local profession to draw up regulations that will protect their real specialists and furnish the right kind of surgery to all in the community. After this method has been found successful in a limited number of places it may then be possible to formulate more general principles for more wide-spread recommendation; perhaps on a national scale.

Sincerely yours,

(signed) Franklin H. Martin."

There are 2 phases of this question that appeal to me. There are many men practicing surgery or the surgical specialties who are capable and honest, but who do not care whether they are recorded as specialists or not. You cannot take away their right to practice, which right they have been granted by their college and by the state. They have submitted to all the requirements and have a right to practice medicine and surgery, and nobody can restrict that a single bit. Then, there is the other class of specialists, many of whom are also capable and honest, but some of whom are not, and those are the men, to my mind, who need legislation or restriction, or some kind of attention. That is a phase of the subject that cannot be adequately dealt with by length of service, or by training, and which can be much better done, I think, by state societies. It hardly needs such elaborate machinery because, surely, in every county in every state the local society officers are familiar with the attainments of the profession in that county, intellectually and morally. It seems to me that state societies could very well certify that certain men are, in their opinion, qualified to hold themselves out as specialists. They do not need to say who is *not* a qualified, but the public would be informed *who are*, in the estimation of the state society, *qualified* to do surgical work. It seems to me not a very difficult matter, after all.

Dr. Henry O. Reik: May I add a word which I forgot to speak, and which other speakers have not mentioned? The Journal of the Indiana Medical Society carries now, constantly or periodically,

I am not sure which, in the advertising section of the Journal, a list of the principal cities in the state, and under each city a list of the members of the society, arranged alphabetically, who are practicing as specialists. I have been considering the advisability of recommending that plan for use in our Journal.

I heartily concur in what Dr. Hagerty has just said about the possibility of devising a simple method of handling this situation.

There is only one other point I want to mention. The point is very well taken, that any man who has acquired a University degree of doctor of medicine, and who has, in addition, by passing the State Board examination, acquired a license to practice in the state, may announce himself as a specialist, and nothing that we can do will make any difference about that as an existing fact. He *can* announce himself as a specialist, if he wishes, but, I believe that action taken by the state or county medical society, such as publishing a list of the *specialists considered by that organization as worthy of recommendation*, will carry a great deal more weight than any law possibly could, and the moral support given by organized medicine to those men considered by the organization to be competent as specialists, will outweigh anything that can be done by members of the profession who are *not supplied with such certification*. Let us give moral support to those men whom we believe to be qualified to practice as specialists, and we can very well leave to the care of the public that man who *says he is a specialist but who has not the support of the State Society*.

Dr. Edward G. Waters (closing): The discussion that you gentlemen have given this subject has been most gratifying, and I am deeply appreciative of the kindly manner in which you have dealt with me. I could talk quite a long while on many points that have been brought out but I will comment on only a few. One is the question which Dr. Harris brought up, and incidentally I want to thank Dr. Harris especially for his comments on my paper, the need that exists for a central control, which I think should be the State Society and not several subsidiary groups which may be or become somewhat antagonistic. I think we all admit the inadvisability of control by legislation, with its biased and ill-informed restrictions. One of the speakers was, I think, somewhat misinformed, because if I interpreted his remarks correctly, he was under the impression that what I suggested smacked of legislative control. Of course, this plan which I have offered is entirely different from that of Dr. Moll, of Michigan, who proposed a plan to be enacted under supervision of the state legislature. That is the last thing I would want to see done. I presented this plan, in slightly different form, more than a year ago, and was somewhat taken back when I saw Dr. Moll's plan advising the American Medical Association to take over a plan which would throw the control of this proposition into the lap of the state legislatures, knowing that legislators are not always as considerate of us as we would like.

The New York Academy of Medicine has requirements and restrictions that are very good but, after all, they apply to only one section of the state, and these to only a select group of practitioners. Of course, there are many pseudo-specialists, as mentioned, and some patients may prefer the pseudo-specialist, and not give us any thanks for trying to help him, but if we have established means for his protection we have acquitted ourselves of that responsibility.

We might be sponsored by 2 national organizations, the National Board of Medical Examiners and the American College of Surgeons. I cannot visualize the American College of Surgeons taking hold of this thing. I think they will give us a lot of generalizations and no specific action. We want some action now, before someone else hands it to us, most likely by legislative command. The National Examining Boards should be helpful, and should be invaluable aids to the Committee on Credentials, but I do not believe they should supplant the State Society control as I have offered it in my plan, because I believe with Dr. Hagerty and Dr. Sommer, that the State Society should be the central controlling body. Then, too, the state and county committees should know their men better than any of the existing Boards. I do not believe it is heresy to say that there are some men not accepted by the American College of Surgeons who should be considered for our possible acceptance.

As far as making this a national affair is concerned, I am in hearty accord with that idea but there are few national bodies that I can think of that do not have to *start* from some place. We must get off on one foot before we pull the other along. I think if we can get something like this started in one state, it will be an opening wedge, and then we can drive on to national organization.

It was mentioned that there should be a minimum preliminary general practice of 5 years. I do not offer this plan as a final form. We would have to have some form to begin with, and I think the minimum should relate to years in practice. I had 5 years of hospital work and now have had 5 more years in practice, and if one has had that much experience he should, I think, be able to start somewhere in a specialty.

I will not attempt to answer the questions that have been brought up, as I think Dr. Harris is much more competent than I to do that. But I may say in regard to the questions as applied to my remarks, that there is nothing in this plan to prevent a man from calling himself a specialist. Under a plan such as this, there will be established a group, recognized by the State Society, as specialists. I doubt very much if the cost of services would increase, because, after all, the number of men practicing a specialty would be limited. It would probably send more people to the accredited specialists, and it would also make a good many of the men who are calling themselves specialists, and who are not properly equipped, improve their work in order that they could make good under this system. I think that, eventually, we would have just as many, and probably a lot better, specialists than we now have.

I am sorry if this plan seemed complex. After all, everything is subservient to the first major portion, and that is—the establishment of accrediting bodies. After you have the state committee established, it would take care of the requirements and acceptances of specialists, and of the necessary training in acceptable hospitals approved by the American Medical Association, the American Hospital Association and the American College of Surgeons. That does not complicate the matter, because that is the business of the state committee. The only real thing, in this plan, of prime importance—is the formation of a state committee. If the President of the State Society is put on the committee, you will have there a man whom the medical population of the state has endorsed. In addition, the Secretary of the State Medical So-

ciety, the First Vice-President, the present and future leaders of the society, the Chairmen of the Board of Trustees, Welfare Committee and Committee on Medical Education, should be the men representing the most advanced thought in medical affairs. They should be men most interested in the welfare of the medical profession as a whole. If you can select a better committee than that, I would be glad to subscribe to it. But let us get something like this through and get the committee started. There could be county committees appointed afterward. I do not care whether there are general practitioners on the committee or not.

A good many things that have been said in discussion have come up probably because the paper was read hastily and it seemed complicated. If you will read it at home, I think you will in 5 minutes understand that it is not at all complicated. This is a home-grown plan, for application by ourselves to our own people and, as Dr. Hagerty so admirably expressed it, the would-be specialists colleagues will know, not only whether the man is able to do an operation, but whether he is honest, and has a decent moral character. While I do not care whether this particular plan is accepted or not, *I do want to impress upon you the need of putting into effect some such plan before some legislator undertakes it.*

Dr. Thomas J. Harris (closing); I have listened to this discussion, Mr. Chairman, with a tremendous amount of interest. It has been a most intelligent and high-class discussion. Everything that has been said has been right to the point. Dr. Waters, in his closing remarks, has perhaps touched upon the most vital spot in this whole question. It is the very point that Dr. Reik brought out in the beginning of his explanation for this meeting; namely, the fact that we must do something to prevent this matter getting into the legislatures. There can be no question about that. If we let this thing drift, there is no question but that it will soon become a matter of legislative action. We should carry that thought away with us, and should do all we can, as Dr. Waters has said, to put forward some plan, the best that we can devise.

Dr. Morrison was favorable to the plan of the national board, provided that we could get all of the state societies to endorse it. Repeating what one of the speakers has said, it would be a splendid thing if we could get our 3 state societies to endorse the national boards. If these 3 states, representing, somebody said, 25% of our medical practitioners in this country, will get behind a plan, in all probability the other states will fall into line.

In regard to Dr. Water's plan, one point was brought out regarding the length of preparation for a specialty. Our National Board of Otolaryngology makes it necessary that the applicant shall have been in general practice for 1 year. Some one today said that it should be at least 5 years. My answer to that is, that we are trying, not to reach an ideal but to devise a plan that can be put across. We say that when a young man has gone through medical school, had 2 years in a general hospital, and 2 years in a special hospital, that all we can ask of him is 1 year in general practice before we give him the privilege of practicing our specialty. I frankly admit that we would like to see it a longer period, for a man is equipped far better if he is in general practice 5 or 10 years, but we are making this minimum

requirement of 1 year and that applies to all we have been putting forward in the last 5 years.

I see in Dr. Water's plan a number of apparent objections. One is, I fear, that if the New Jersey plan is adopted, Illinois will adopt a state plan of its devising, as would also Texas and Kentucky, and the result would be, ultimately, that we would have different laws governing the qualifications of specialists all over the country. I believe that we must have a national control, some body or group to coöperate with our state societies, and with the national boards as well. And, I believe it is possible to bring that about. As to 15 years in general practice, I fear that is hardly practicable. I feel that the young men who go into the specialties do so with a certain verve after 5 years in practice that is lacking in those who have been practicing for 15 years. The American Board of Otolaryngology has sought to make minimum requirements for the men who have come before it; it has not sought maximum requirements, at all. And yet, I am wondering if the standards which Dr. Waters has proposed to establish would not be too lax. When a man makes an application for examination, to our Board, we first acquaint ourselves with the moral standing of that man before he is permitted to have an examination. We get such information through every channel that we can, by letters of endorsement presented by him, by letters that we obtain irrespective of his recommendations. We consider him seriously, asking his State Society for endorsement of the man, morally and ethically, before we will undertake the examination.

I may say a word about the way in which we conduct examinations: Having approved a young man's application and learned his moral and ethical standards, he is examined by 10 men representing the 5 national societies. We are not an independent board, but represent the 5 great societies of the country which contain in one way or another the outstanding otolaryngologists of the country. One of the 5 is the Section of Otolaryngology of the American Medical Association. Those 10 men, elected by the 5 organizations, meet 2 or 3 times a year, and examine applicants in their clinical qualifications. The men are given at least 2 patients to examine and they are supposed to give a complete didactic examination. Then, they are examined by 2 pathologists, 1 in gross and 1 in minute pathology. Having met the night before we pass on the man's qualifications to take the examination, we meet the same night to consider whether he has met the examination requirements. The plan for the College is followed out. Every man's work is tested. We do not know who the men are. If one has a mark high above the others, he has to defend his position. About 19% of the applicants are rejected. We have said that this is about all we can require of a man who comes before us. We have also told the applicants that we are not trying to keep them out but that we want them to show us that they are safe to practice our specialty.

The point has been very well raised by Dr. Lawrence, as to what is to prevent men from holding themselves out as specialists if they do not have our certification. Chiefly this: If we can get the state societies and the American Medical Association back of this endorsement; if we can get a controlling number of the men who are practicing the specialties as certified by the various boards, *ipso facto*, it will work that the pub-

lic will select those men who have certification. The public is today very critical indeed and wants to know about a doctor's qualifications, and the patients will select the man with the certificate.

An important part of Dr. Waters' valuable contribution was the matter of publicity. Dr. Reik has spoken about the Indiana State Journal announcing the men of that state who have certificates. I favor something like this: The display of a certificate on the wall of the office, and the publication of certain lists. It is the great hope of us who are so greatly interested in the problem, that "the powers that be", in New York State Medical Society, will agree to showing some recognition of the certificate of the Board. At present they are obdurate. They do not recognize the value or the importance of it. However, some plan such as Dr. Waters' has brought out for publicity, is essential.

It is my very great hope, Mr. Chairman, that out of this discussion we have had today there will come some action from your own state. I very much regret that Dr. Heyd is not here today, as he is a very progressive and far-seeing man. But, if New Jersey will take the lead, as she has done on more than one occasion, and if we could have the chance to follow and help to set the example, then I believe something wonderful has started. I believe that if the state societies of the country will take hold of this thing, a satisfactory national plan can be worked out. It must be, as Dr. Waters has intimated, more or less of a compromise, but it can be worked out so that all of the state organizations can coöperate.

Dr. Henry O. Reik (Secretary): Before we depart, may I say on behalf of the New York men who were present but who had to leave in order to catch a special train, the Conference, as usual, is invited to hold the next session in New York, in midwinter.

We received this morning messages of regret from men who desired to be here but could not. Dr. Vander Veer had made reservation at the hotel, and until last night had expected to come. A number of others have sent their regrets. One important message was received, concerning Dr. Fisher, an ex-President, that he and Mrs. Fisher suffered severe injuries in an automobile accident and are both in the St. Elizabeth's Hospital, in Utica. I took it upon myself to send a message of sympathy, and wishes for a speedy and complete recovery, to Dr. and Mrs. Fisher, in the name of this Conference.

I move that the invitation, to hold our next Conference in New York, be accepted. The Conference is not an official organization to do anything more than report back to the respective state societies, so I think no other special action is necessary. We may assume that this matter will be referred to the 3 state societies for further consideration.

Dr. Hagerty (Chairman): I know that the Conference will approve of the action taken by Dr. Reik. I wish, now, on behalf of the members of the Conference, to thank the speakers for the excellent presentation of their subjects, and to say that their efforts are very much appreciated.

Upon motion, duly seconded and carried, the Conference adjourned at 4:15 p. m.

MINUTES OF THE WELFARE COMMITTEE

Trenton, New Jersey,
January 31, 1932.

Pursuant to call, under the direction of Dr. A. Haines Lippincott, Chairman, a special meeting of the Welfare Committee was held at the Stacy-Trent Hotel, Trenton, Sunday, January 31; being called to order by the Chairman at 2 p. m.

Upon roll call, the following members responded as present: Drs. Bloom, Clayton, A. H. Coleman, Dandois, Davis, Green, Haggerty, Haggerty, Haussling, Lee, Lippincott, McBride, McMahon, Meigh, Morrill, Morrison, Mulford, Nafey, North, Schauffler, Schlichter, Sewall, Sherman, Semmer, Tracy and Ulmer; excuses were received from: Drs. Conaway, Donohoe, Londrigan and Morrow; the following guests were present: Mccray, McGuire, Kelley, Darnall, Eagleton and Marvel; regrets received from guests: Ely and Quigley; from the State Board of Health, its Director. Dr. Mahaffey attended his first meeting in response to the Committee's invitation to sit in at all of the regular meetings; and, Dr. Newcomb, Assemblyman from Burlington County, was present to discuss pending legislation.

The Executive Secretary read his report, as follows:

Report of the Executive Secretary to the Welfare Committee

January 31, 1932.

The minutes of the December meeting of this committee were published in the January Journal, pages 75 to 77, both inclusive, and reference to that report may today be limited to saying that such instructions to the Executive Secretary as are contained therein have all been dealt with conclusively, with the single exception of the permission to order printed such of the previously issued Primers as in the judgment of the Executive Secretary may seem necessary, and decision on that matter he understands to be open until that need can be further investigated and studied.

On Friday, January 15, Mr. Buch, Chairman of the Crippled Children's Commission, accompanied by Mr. D. C. Bowen and Dr. B. F. Buzby, other members of that Commission, visited the Executive Secretary's office for a conference regarding the Commission's work and its relationship to the medical profession. In the December Journal, pages 975 and 976, you may have read a communication from the commission, explaining the manner in which the work is to be inaugurated; with special reference to a survey of the state to ascertain the number, location, and condition of such children as may have been crippled by the recent epidemic of poliomyelitis; the survey mentioned to be conducted by one or more, as may be necessary, registered nurses, under the direct supervision of members of the commission; and with the promise to keep the medical profession informed as to any proceedings on the part of the commission, through the Executive Secretary's office to the Welfare Committee of the Medical Society of New Jersey. The letter referred to, published as a communication from the chairman of the commission, was submitted before publication anywhere to the President and the Executive Secretary of the State Medical Society and their approval secured.

At the conference on January 15, the plans of the commission were thoroughly considered, and the Executive Secretary endorsed the first step by the commission, other than the survey previously

referred to, which consisted of a proposition to have the legislature amend the act establishing the commission, to the extent only of substituting the name of the commission, in place of the words--State Rehabilitation Commission--wherever they appear in the present law. The amendment is sought for the purpose of keeping the records of the commission and of the crippled children, other than those which, by law or by custom, belong to the State Department of Health, in the commission's office, and for the purpose of minimizing labor and simplifying the commission's relationship to the patients and their physicians in order that adequate and proper medical relief may be promptly provided.

The Executive Secretary feels that with Mr. Buch, Mr. Bowen and Dr. Buzby on the commission, and considering their previous relationships to the medical profession, coöperation of the commission and the profession will in all probability be complete and satisfactory.

We are in receipt of a communication from Dr. Londrigan concerning the advisability of seeking, at the present time, amendments to the Hospital Lien Law, in which he states that his committee has been in conference with other institutions and organizations and that an agreement had been made for the hospital association to sponsor the amendments which have on previous occasions, been discussed here, but that after further conferences, and consultation with an attorney who has served in the state senate, it was decided to accept the advice given by the said attorney, and which was as follows: "As the Lien Law has been in operation for only one and a half years, during which time Hospitals and Insurance Companies have been slowly becoming accustomed to it, a further period of a year of two should elapse before additional legislation is undertaken. In that time additional features or points may arise which should be given careful consideration, and which may affect the conclusion relative to amendments." The attorney stated, further: "In times like these, when conditions are disturbed, and feelings easily aroused; when the legislature is divided between the parties, and when Insurance Companies are operating at a deficit, and are resentful of anything that would increase their expenses it is questionable whether in the end you might not have a lien law worse than the one now existing; almost any legislative result may be possible at Trenton during the coming legislative session, and unless the desired changes are vital, or unless the defects of the law constitute an unbearable burden, seeking legislative action is certainly contraindicated."

We understand that Dr. Londrigan presents this message as the report of his committee.

We desire to report that Dr. Jesse L. Mahaffey, State Director of Public Health, has accepted the invitation of the Welfare Committee to sit in at its regular meetings, and that he has expressed appreciation of the courtesy of the Welfare Committee.

We have carefully scanned the Legislative Index, the last copy of which is dated January 30, and can report that, up to the present time, no bill has been introduced that need occasion any worry on the part of this committee. Dr. Newcomb has again introduced his bill providing for more thorough chest examinations of school children, which, if of the same nature as the bill of last year, we presume the Welfare Committee will endorse. Several bills, copies of which have not yet been secured, will be examined as soon as possible, lest they may cover in some undesirable clause; such,

for instance, as a bill creating a Board of Barbers Examinations; an amendment to the optometry law; one or more bills concerning the purity of milk offered for sale; and one or more bills relating to the Workman's Compensation Law.

At Washington, we are informed by Dr. Woodward, of the American Medical Association, that two bills have been introduced—S. 572, by Senator Wesley L. Jones, of the state of Washington, and H. R. 7525, by Congressman Bankhead of Alabama—both of which are duplicates of the bills introduced at the last preceding national congress, designed to reestablish the Sheppard-Towner law and the bureau in the Department of Labor which formerly dealt with the work relating to maternal and infancy welfare. After conference with President Hagerty, the Executive Secretary addressed a letter to each of New Jersey's Senators, and each of New Jersey's Congressmen, directing their attention to the pending legislation above mentioned, explaining why the medical profession opposed legislation of that kind, and informing them that the physicians, members of this state society, to the number of 2600, disapprove enactment of such laws and respectfully request that the Senators and Representatives from New Jersey use their best efforts to defeat the Jones-Bankhead bills. We furthermore filed a request that we be notified if and when a Public Hearing should be held, for the expression of views concerning these bills.

On January 24, we received from Dr. Woodward a notice that: "A hearing on the Jones Bill, S. 572, is set for Thursday, February 4, before the Senate Committee on Commerce." That message was promptly forwarded to President Hagerty who had expressed his intention of attending the hearing. We are very sorry to say that a letter received from Dr. Hagerty yesterday expresses the fear that he will not be able to do so.

We are in receipt of a communication from Congressman Bloom submitting plans of the United States Commission on the Celebration of the Two-Hundredth Anniversary of the Birth of George Washington, and stating that: "The commission is anxious to enlist the full collaboration of every organization in this great republic, and, relying upon the interest and support of the members of this society, requests the adoption of some formal resolution expressing approval of this organization for the celebration"; and to save us labor, Mr. Bloom submits a typewritten document consisting of 4 whereases and 2 resolves—all of which seem innocent enough for receipt of the society's endorsement.

In conclusion, we have only to mention the fact that at the last meeting a subcommittee, of which Dr. McBride was appointed Chairman, was asked to consider the advisability of seeking legislation this year in the nature of amendments to the Medical Practice Act; and to report that, at Dr. McBride's request, the Executive Secretary issued a questionnaire relating to the matters under consideration by his committee, tabulated the results, and forwarded that record to Dr. McBride; but Dr. McBride will personally report that matter to this committee.

Respectfully submitted by

Henry O. Reik, Secretary.

The Chairman, having asked for consideration of this report by sections, the first subject taken up was that concerning the public hearing granted by the Senate of the United States Congress to those who desired to discuss Senate Bill 572, on Thursday, February 4. Dr. Morrison moved that if it proved to be impossible for the President to at-

tend that hearing, the Executive Secretary be authorized to do so at the expense of the Welfare Committee; which motion, after an explanation by Dr. Hagerty, and an expression of his regret that circumstances seem likely to prevent his going, was unanimously adopted.

The Executive Secretary read again Dr. Londrigan's letter, concerning the seeking of amendments to the Hospital Lien Law, and submitting from his committee the advice that no effort should be made, in that direction, at the present session of the Legislature of New Jersey.

Dr. Schaufler moved that the report be accepted and approved; and his motion was unanimously adopted.

Dr. McBride, Chairman of a subcommittee appointed at the last meeting of the Welfare Committee to consider the advisability of seeking amendments to the Medical Practice Act, reported that, with the aid of the Executive Secretary, he had issued a questionnaire to a number of the leading members of the state society but not at the moment members of the Welfare Committee or holding any other official position in the society—former members of the Board of Trustees, and several of them ex-presidents of the society—for the purpose of obtaining their opinions, to be considered if it seemed desirable along with the opinions of those attending this meeting today, and the responses had been collected, tabulated and returned by the Executive Secretary to the Chairman of the subcommittee. Dr. McBride stated further that the subcommittee had held a meeting just prior to this session of the Welfare Committee, and having studied the questionnaire results and expressed their own individual opinions, had instructed him to report to the Welfare Committee *that this is not an opportune time to request legislative action upon the existing Medical Practice Act*. He stated also that the questionnaire referred to had contained other questions, such as the advisability of striving for inclusion of amendments relating to the "Doctor's Title Bill", the equalizing of educational standards as applied to persons seeking a license to practice, the establishment of *annual registration* and, provisions for a *Grievance Committee*; all of these things having been mentioned at a previous meeting of this Committee as desirable amendments. The essential point in the questionnaire was question No. 1, which referred to the opportunities and advisability of seeking any legislation in the nature of amendments to this particular law; and, consequently, if that question was answered in the negative, the others need scarcely be further considered; he would state, however, that whereas the vote upon question No. 1 was a nearly unanimous negative, the votes upon other topics mentioned varied considerably; but a summary showed in each instance a majority opposed to any immediate action upon those matters.

The Executive Secretary directed attention to a portion of Dr. Londrigan's report, wherein his committee was advised by an attorney, who had for some years served as a State Senator, that this is anything but an opportune moment to ask for legislative favors, and indicated the application of his opinion to the Medical Practice Act particularly. The Executive Secretary also presented a letter from Dr. Morrison, stating that: "Members of the Welfare Committee representing Essex County Medical Society were invited to a conference with the Council of the Essex County Medical Society on the evening of January 24, to discuss the advisability of trying to amend the Medical Practice Act this year. It was the consensus of opinion,

without a single voice in opposition, that it would be unwise to seek any amendment of our Medical Practice Act this year. The members of the Council present, about 12 in number, were representative physicians in the affairs of the county and state societies, representing the interests of about 900 physicians."

Dr. Morrison, in connection with the above mentioned communication, spoke concerning the establishment of a Grievance Committee, which had been a proposition of his own, and said that since the last meeting of this committee he had conferred with members of the New York State Society and of their Grievance Committee, and learned that however desirable it might be to have a Grievance Committee, it would be an expensive thing to maintain, and, inasmuch as there is strong opposition to securing funds by means of annual registration, he could see no way to provide for such a committee at the present time.

Dr. Morrill moved that the report of Dr. McBride's committee be accepted and approved, and his motion, duly seconded, was unanimously adopted.

The Executive Secretary then referred to that portion of his report concerning the Crippled Children's Commission, and upon motion of Dr. Schaufler, the Welfare Committee approved the action taken by the Executive Secretary and authorized him to follow the course described in his report, as liaison between the Commission and the Society, representing the Society as heretofore.

The Executive Secretary presented a communication from the United States Commission on the celebration of the Two-Hundredth Anniversary of the Birth of George Washington, and received from the Secretary of that Commission, requesting a resolution approving said celebration. The Committee voted the Executive Secretary authority to prepare and sign such a resolution.

Dr. Newcomb, being called upon by the Chairman, stated that his Bill, authorizing physicians to require, in the course of school examinations, complete exposure of the chest for heart and lung features of the examination, is the same as the one introduced last year, save for changing one or two words that seemed last year to have caused some confusion. The Committee thereupon voted approval of that Bill—A, 44.

The Executive Secretary having mentioned the introduction of a Bill dealing with optometry, and Dr. Newcomb having a copy of that Bill—S. 45—submitted it to the Chairman, who in turn passed it to Dr. Sherman with the request that he should study it and report to the Welfare Committee if it required any further consideration.

The Executive Secretary having mentioned the introduction of Bills having to do with the purity of milk sold in the state, the Chairman asked Dr. Mahaffey if any action on the part of this Committee was necessary or desirable. The Director of Health replied to that question in the negative, and added that he was pleased to be associated with the Welfare Committee and would be glad to cooperate with the Committee in any matters pertaining to public health. He expressed the wish, at the moment, to explain that his associations with Mr. Buch, Chairman of the Crippled Children's Commission, had been of most pleasant character; that Mr. Buch had been of great service to him and to the Health Department in other matters; and, that he could assure the Welfare Committee of Mr. Buch's honest intentions in planning and conducting the work of finding and caring for crippled children.

Dr. Newcomb, asking permission to speak again,

and upon another important matter, described the conditions at the State House under which the Board of Health has to work; described the conditions as shameful to the state of New Jersey, and urged that the State Medical Society demand proper amount of space, proper working conditions, and proper facilities for the department under Dr. Mahaffey's direction, which has to do with the health and the living conditions of all the people in the state.

With Dr. Mahaffey's consent the Welfare Committee unanimously adopted a motion presented by Dr. Newcomb, as follows: That the Medical Society of New Jersey, believing the health of the people to be of greater importance than any other single subject considered by the state government, directs attention to the shameful conditions under which the State Department of Health has to work, urges that steps be taken by the proper departments of the government to provide the Department of Health with suitable office and laboratory buildings, better equipment, and a sufficient amount of money with which to conduct its work. And the Welfare Committee of the Medical Society of New Jersey submits this question to the Honorable A. Harry Moore, Governor of the State of New Jersey, with the request that he shall give it careful consideration at the earliest possible moment.

Dr. Mahaffey called attention to the fact that congratulations are being extended to Dr. B. S. Pollak upon his twenty-fifth anniversary of work at the Hudson County Tuberculosis Hospital in Secaucus, and moved that the Executive Secretary be authorized to prepare and telegraph to Dr. Pollak a suitable message of congratulations and of commendation for his good work in behalf of New Jersey citizens suffering from tuberculosis. The motion was unanimously adopted (and was later put into effect by the Executive Secretary).

The meeting then adjourned.

ANNUAL CONFERENCE OF STATE AND LOCAL HEALTH OFFICIALS

(Report Supplied to the Journal by Dr. Mahaffey, State Director of Public Health, Trenton, N. J.)

If there was any doubt of the increasing interest of local health board members and employees in the Annual Conference of State and Local Health Officials, it was set at rest by the record attendance at the 22nd conference held at Trenton on February 5. Registration showed 306 present; double the usual number of a few years ago and 36 more than the previous record, established last year. Moreover, the increase was practically all among local delegates.

Topics presented at the afternoon session included county health departments and venereal disease control. Dr. Carl E. Buck, Field Director, American Public Health Association, set forth reasons why organization of public health work on a county basis is more practical and efficient, in general, than when smaller units are employed. Among these reasons were the use of full-time, trained employees, uniform practices in adjoining communities, fewer boards of health and less political interference.

William H. MacDonald, Acting Chief, Bureau of Local Health Administration, N. J. State Department of Health, described the present organization in this state whereby 563 boards of health, many of them serving townships and municipalities of

only a few hundred inhabitants each, are responsible for local health administration. He stated that should a change to county health departments be seriously considered at any future time, he would suggest that the plan be first tried out in the smaller, rural counties. He recommended further that 3 policies be adhered to in such a plan: (1) that the county board of health be directly responsible for public health work in its district and not be a super-board over local boards within that territory; (2) that acceptance of the county plan be optional with each county; (3) and that any municipality might remain independent in its health administration if it maintained an efficient organization for the purpose.

The problem of insuring treatment of persons affected with syphilis and gonorrhea until the non-infectious stage is reached, was presented by Carl Daines, Supervisor of Social Hygiene Education, Bureau of Venereal Disease Control, N. J. State Department of Health. Mr. Daines made use of charts to show how important these 2 diseases are as causes of sickness and death, and led a lively "question and answer" discussion on the powers and duties of local boards of health in dealing with these ailments.

"Twins Are Enough"—was the name of the playlet. The scene was laid in the office of William Fuller, recently elected assessor and therefore secretary of the township board of health. When Mrs. Susie Johnson, local ne'er do-well, applied for a license to board 8 babies and 2 older girls, the assessor used his good sense to balance a lack of knowledge of his new duties. Susie's plea, that her family "was patriots and had done a lot for the town", was beginning to make an impression when the state child hygiene supervisor arrived and explained the New Jersey policy of not more than 1 or 2 boarded children to a family. Mrs. Johnson admitted that *her* twins had been enough, and the audience understood that her lack of personal fitness, and mercenary attitude, would prevent the granting of a license.

The evening session showed interest in the "Report of Tests of 29 Mouth Washes", given by Edwin G. Applegate, Senior Chemist, State Department of Health. Experiments made in the laboratory of the Department were designed to show whether or not the *claims as to the antiseptic powers* of these mouth washes were exaggerated. For some of the tests, the mouths of 4 employees of the Department were used, these 4 representing excellent natural teeth, poor teeth, false teeth and no teeth at all. The tests showed that the claims made for most of the mouth washes were essentially true. The antiseptic washes caused considerable reduction in the number of live bacteria in the mouth, and their effects were noticeable for an hour.

Dr. H. D. Pease, Director of Research, Oyster Grower's and Dealer's Association of North America, employed moving pictures and lantern slides to illustrate his talk on "Science Justifies One of Man's Oldest Foods". The story of how oysters feed, grow, reproduce, hibernate and are protected and used by man, was most enlightening. The moving pictures of the reproduction of the oyster, and development during the free-swimming stage, was a revelation to most of the audience. Dr. Pease explained why raw oysters are valuable in treating pernicious anemia.

Monmouth County again won the attendance race with 54 delegates. Bergen stood second with 34. Total persons and places represented, arranged by counties, are shown in the following table:

Registration at the Annual Conference held in 1932		
County	No. Places Represented	Number Persons
Atlantic	4	6
Bergen	26	37
Burlington	9	12
Camden	4	6
Cape May	4	6
Cumberland	5	7
Essex	12	22
Gloucester	3	5
Hudson	4	10
Hunterdon	1	1
Mercer	10	26
Middlesex	5	6
Monmouth	29	53
Morris	9	19
Ocean	1	2
Passaic	8	10
Salem	3	5
Somerset	10	9
Sussex	2	2
Union	10	17
Warren	0	0
Totals	159	261

Local health officials	207
Delegates from other health organizations and visitors	46
Officers and employees of State Health Department	48
Total registration	306

School Health Department

ORGANIZING FOR HEALTH IN HIGH SCHOOLS

Allen G. Ireland, M.D.,

Director of Physical and Health Education, State Department of Education, Trenton, N. J.

The following quotations are from the Report of the Sub-Committee on Health Education in Secondary Schools, of the White House Conference.

These objectives will not be attained if left to chance. The result in such a case usually is a program, in which the medical findings reach neither teachers nor parents; health instruction is as varied as the persons giving it; and neither health service nor health instruction in the school takes any account of service or instruction given elsewhere. Neither will these objectives be attained by nurses who are already overburdened. Careful plans must be made, administrative machinery set up, and responsibility fixed, for the unifying of the efforts of all persons involved in health service or instruction within and without the school. This must include:

(1) Giving responsibility and authority to some one person or group of persons in the school for becoming acquainted with all aspects of the health program in the school, for bringing pertinent information to the person who can use it, and for making modifications in program or procedure. Selection of such persons should be made with the idea of reasonably permanent tenure of office in order to prevent loss of efficiency in development of the program.

(2) Recording in permanent form all information regarding the health of individual pupils. This information should be in such form as to be intelligible to and usable by physicians, parents, teachers.

(3) Making such records available to all persons having responsibility for pupils.

(4) Acquainting parents with the aims and procedures of the health program, and becoming acquainted with the health practices and standards of home and community.

(5) Checking by tests, surveys and observation the progress of the health program.

The Principal. "The essential factor in every situation is an interested and well-informed principal. The principal knows his school as no one else does, and carries authority for all aspects of school life which affect the health of pupils or teachers. In small schools, he may coördinate the health program himself. In large schools, he may delegate responsibility and authority to some other person, but his interest and knowledge of the school must be capitalized if the program is to be successful."

The Health Coördinator. "Appointment by the principal, of a health coördinator to keep in contact with all phases of the health program and to see that plans are carried out, has proved a valuable administrative device. In some schools this person has been named the Health Officer, in others the Health Administrator, in others the Health Counselor. The position is usually a part-time one, 1 or 2 periods a day being devoted to the work. The duties of a Health Coördinator demand interest in children on the part of the one undertaking them, an intimate knowledge of the school in which the work is done, and that training in the fundamental sciences which is necessary to an understanding of health problems and the measures necessary to their solution. Many teachers possess qualifications necessary to make excellent health coördinators. Teachers of home economics, physical education, science, and hygiene have filled the position successfully in various schools."

State Health Department

MAKING AND SUSTAINING A RECORD

J. Lynn Mahaffey, M.D.,
Director, State Department of Health,
Trenton, N. J.

A low general death rate and low infant mortality rate were attained in New Jersey in 1931; in fact, the general death rate for 1931 was 10.63, which is identical with the rate for 1930, which, in turn, was the lowest since the State Department of Health was established 54 years ago; the previous lowest rate having been 11.43 for 1927.

The death rate from typhoid fever, diphtheria and tuberculosis were all the lowest rates for those diseases ever reached in the state of New Jersey; the typhoid rate being 0.9 per 100,000 population, diphtheria 2.9, and tuberculosis 65.1.

The maximum typhoid fever death rate in New Jersey occurred in 1882, when it was 74.3. Since 1912, the annual death rate for this disease has not exceeded 10 per 100,000 population, and the highest rate during the past 5 years was 1.7, in 1928.

The death rate from diphtheria in 1888, was 148 per 100,000. During the decade beginning with

1900, the rate declined from 48 to 25, and the 10 year period following that showed a further decline to 18. The rate for 1931 was the lowest yet recorded.

The rate from all forms of tuberculosis was 65.1 per 100,000 population, which compared favorably with a rate of 90.1 from the same disease only 7 years ago.

The death rate from cancer and other malignant tumors was 113.5, a rate which has gradually increased from 37 per 100,000 in 1879.

Approximately 64,050 births were reported as occurring in 1931, which was equivalent to a rate of 15.43 per 1000 population. Total births reported show a decline of approximately 4150 births from the number recorded in 1930. The decrease of upward of 6% is the greatest since birth reporting was made mandatory in 1878.

The number of deaths of infants under 1 year of age per 1000 babies born alive was 56.9, next to the lowest infant mortality rate in New Jersey since such rates were first published—in 1906. The lowest rate, 56.7, occurred in 1930. Rates could have been computed prior to 1906 but birth registration was not sufficiently complete to make them reliable. The number of mothers who died as a result of childbirth was 378, or 5.9 per 1000 babies born alive. This compared with 5.7 for the preceding year.

Communications

AMERICAN COLLEGE OF PHYSICIANS TO AWARD PRIZE TO DR. O. T. AVERY

(Letter from E. R. Loveland, Executive Secretary of the American College of Physicians.)

The American College of Physicians recently selected Dr. O. T. Avery, of the Hospital of the Rockefeller Institute, New York City, as recipient of the John Phillips Memorial Prize for 1932. This prize, an annual award by the College in the sum of \$1500, is given to perpetuate in the College the memory of Dr. John Phillips, of Cleveland, a man of outstanding accomplishments as investigator, teacher and physician, for many years a member of the Board of Regents of the American College of Physicians, who gave his life in saving others on the occasion of the Cleveland Clinic disaster, May 15, 1929.

The Committee, through its chairman, Dr. James H. Means, of Boston, recommends the award, "To Dr. O. T. Avery for the series of studies upon the Pneumococcus, in which he has played a leading rôle, beginning with discovery of the type-specific soluble capsular polysaccharides and culminating in the discovery of a bacterium producing an enzyme which splits the polysaccharides of Type 3 Pneumococcus in vitro, thus rendering it susceptible to phagocytosis, and thereby protecting animals so infected."

The Sixteenth Annual Clinical Session of the College will be held in San Francisco during the week of April 4, 1932. Dr. Avery will deliver an address—"The Rôle of Specific Carbohydrates in Pneumococcus Infection and Immunity"—at the Convocation on Wednesday evening, April 6. The prize will be presented to him by Dr. S. Marx White, of Minneapolis, President of the College.

The distinction of this award is enhanced by the fact that although it was available the previous year, it was not possible to decide on a suitable

recipient. This is, therefore, the *first award made*. It is the hope of the officers and members of the College that this annual prize in memory of a distinguished colleague may, by recognizing merit, be a continuing stimulus to investigators in those subjects having a direct bearing on the advancement of Clinical Science.

SOCIAL INSURANCE: MOST GOVERNMENTS ARE INEFFICIENT OR CORRUPT— SOME ARE BOTH

Edward H. Ochsner, M.D., Chicago, Illinois
(This is the third in a series of communications, dealing with the genesis—in January Journal—and progress of social insurance)

One of the very first questions that naturally arises is: Have any of our governmental agencies so conducted themselves in the past as to make it reasonably safe for us to entrust so stupendous a function as universal social insurance to any branch or department? I maintain that most of our local as well as state governments are inefficient or corrupt, and some are both.

Let any one who doubts the correctness of this statement take a little time to look around with a critical eye and observe how most local governments, the various departments of the state in which he lives, and the departments of the federal government, are conducted, and I am convinced that he will find more inefficiency than he has ever dreamed could exist. If he does not personally know of corruption and inefficiency in government, let him but scan one, single, daily newspaper regularly for a month, in order to become convinced. And what else can one expect who is at all familiar with politics as it has been played and managed in these United States during the year 1931; the manner in which most men secure their nominations, and, later, their elections; and to whom they are beholden when they take office?

We have all seen the statement repeatedly in the public press, but have never seen it successfully refuted, that in many of the political subdivisions of our country only 60% of the taxes collected are effectively spent; the remainder being frittered away, wasted or stolen. This inefficiency and corruption is due to many causes, of which some of the more important are:

The fact that, so far, no formula has been discovered according to which the most efficient, honest, industrious and worthy members of the community can be secured for public office. Nor has there been any method devised whereby spoils, politics, favoritism, pull, nepotism, waste and graft can be eliminated with even a reasonable degree of certainty. The individual who could solve these 2 problems would not only be the greatest benefactor of the human race but the wisest man the world has so far produced. Plato tried to solve this problem 23 centuries ago, when he wrote his "Republic". For a time, he actually thought he had found a solution. He prevailed upon the King of Syracuse, to adopt his plan and put it into operation. The King tried it for a while, tired of it, and sold Plato into slavery. Some good friends ransomed him. After that, he was not so sure that his scheme would work in practice. Things are not much different today than they were in the time of Plato. Only worse! Worse—because of the increase in population, resulting in larger governmental units; the enormous increase in number of those exercising the franchise; in-

crease in the percentage number of ignorant voters and the ever-increasing astuteness and *finesse* of our *practical* politicians.

The combination of *inefficiency and corruption* is so common that we have become callous to it. We are annoyed by it; we grumble and complain mildly about it; we pay our ever-mounting taxes, if we have anything with which to pay; and "let it go at that". It almost seems as though we humans had adopted David Harum's dog philosophy and are applying it to ourselves. He said: "A certain amount of fleas is good for a dog; it keeps him from brooding on being a dog."

The best illustration of governmental muddling in general, is to be found in the mess which most governments in the world have made of themselves during the past 20 years. As examples, we need but call attention to the virtual bankruptcy of Germany and of Austria; the maladministration in Russia; revolutions in Spain, China, Central and South America; the dictatorships in Poland and Italy; and when we come nearer home, the general lawlessness in the United States, with murders and kidnapping for ransom; conditions in the city of New York as disclosed by the Seabury Investigation; the virtual bankruptcy of Chicago and Philadelphia; and the near-bankruptcy of many other governmental units.

Let us study conditions in our own country a little more in detail, in order to determine whether it would be wise, or even safe, to entrust the federal, state and local governments or any one of them, with supervision over the private lives of the citizens. (This phase of the problem will be taken up more in detail in the future installments).

STATEMENT FROM DR. STANLEY NICHOLS, CHAIRMAN OF THE PEDIATRIC SECTION

In order to make the program of the Pediatric Section of the State Society, in June 1932, as valuable as possible to those attending, the subjects presented will be under the general heading of "Present Pediatric Problems". A list of some present-day problems is appended. Any member of the State Society, whether a pediatrician or not, who has something of value to contribute in relation to any of these subjects, is requested to communicate as soon as possible with the Chairman of the Section, Dr. Stanley Nichols, Jersey Central Building, Asbury Park, New Jersey.

LIST OF TOPICS

New-born: Birth hemorrhage, prevention, diagnosis and treatment. Routine skin care, prevention and treatment of impetigo.

Infant mortality in the first month; causes, how to reduce it.

Infant feeding: Which sugar and why? Present trends, and reasons therefor. Milk; what kind and indications. Foods other than milk; when best begun and why?

Diphtheria: Prevention; toxin-antitoxin versus toxoid.

Measles: Whole-blood injections; serum.

Scarlet fever: Control of.

Acute anterior poliomyelitis: What has been learned? Result of the recent epidemic.

Diarrhea: Prevention and treatment.

The child with frequent colds: Nose and throat as focal infection areas. Role of sinusitis. Allergy to bacteria. Prevention of colds.

Pneumonia: Prevention. Treatment (particularly, serum treatment) in children.

Pyelitis.

Rickets, present status.

Habit training: Pediatrician's rôle in future parental education.

Nutrition: What are the new, individual methods of judging nutrition?

Public health: The rôle of the pediatrician, and his opportunities in the public health field.

Tonsils: What is the normal tonsil? How can one prove the tonsil to be diseased?

Rheumatic fever: Prevention.

Tuberculosis: Prevention and early detection, in private practice and in schools.

Spasmophilia: Calcium and phosphorus metabolism.

Eczema in infants and older children.

Poor appetite in children.

AMERICAN BOARD FOR OPHTHALMIC EXAMINATIONS

The American Board for Ophthalmic examinations will hold an examination in New Orleans on Monday, May 9, 1932, at the time of the meeting of the American Medical Association. Necessary applications for this examination can be procured from the Secretary, Dr. William H. Wilder, 122 South Michigan Avenue, Chicago, Illinois, and should be sent to him at least 60 days before the date of examination.

MATERNAL WELFARE

(A Letter from Dr. Arthur W. Bingham, Chairman of the State Society's Special Committee on Maternal Welfare)

The Maternal Welfare Committee appointed by President Hagerty is making an effort to organize its work in the various counties. Progress has been rather slow, as a large number of the County Society Presidents either have failed to appoint a local committee, as requested, or have neglected to report the action to the State Society Committee. Returns are steadily coming in, however, and up to date the following counties have organized their committees: Bergen, Essex, Gloucester, Hudson, Hunterdon, Mercer, Middlesex, Monmouth, Morris, Passaic, Sussex, Union and Cape May.

All of those appointed seem to be very much interested. Most of our work has been done with individual members from the various counties, but a meeting for all members of the county commissions is to be held at Atlantic City, during the time of the State Society Meeting, in June.

What is to be accomplished by such a commission? It is hoped that the commission for Maternal Welfare, in each county, will eventually guide all efforts to improve obstetrics in its own district, by coordinating all existing agencies and directing various ways and means for the improvement of maternity care. I know of no county in which pre-natal care cannot be improved; so why not improve it, and extend it, so that every part of every county may be covered, and conditions everywhere improved?

A system of combining *nursing visits* with *clinics* can be arranged so as to cover the rural districts as well as the towns and cities. A pre-natal card might be distributed freely to all physicians, so as to improve the work in that line. Each county might have a *drive for better obstetrics*, with some lectures for physicians and others for

women patients. More complete records might be kept, so that each county may have accurate statistics.

Here is an opportunity for *New Jersey* to become one of the *leaders* in this effort to improve maternity care. It seems that the best way to proceed is for each county committee to handle the work in its own district and report to a central committee. The Maternal Welfare Committee of the State Society is anxious to assist in every way possible but conditions vary in different counties, so that each county will probably have its own particular problems. It is easy to see that there is plenty of work to be done; so, why not start now?

As an illustration of what may be done, in the larger towns, at any rate, the following program may serve a useful purpose:

The Section on Obstetrics and Gynecology, of the Academy of Medicine of Northern New Jersey, is continuing its efforts for better obstetrics by carrying out the following program.

October 15, 1931, Dr. Paul Titus, of Pittsburgh, read a paper on "Recent Developments in the Treatment of Toxemia of Pregnancy". He advocated more extensive use of 25% solution of glucose in these cases, as well as the development of more intensive pre-natal care, for prevention.

November 5, 1931, a clinical meeting was held at Orange Memorial Hospital. The following demonstrations were given: (1) Set-up for delivery; Ziegler clamp. (2) Varieties of forceps. (3) Incubator and premature box. (4) Electric breast pump and cautery for treatment of cervix. (5) Apparatus for resuscitation of new-born; CO₂ and oxygen outfit; tracheal tube. (6) Aldrich outfit for insufflation of tubes; lipiodol outfit. (7) Gwathmey analgesia; Ascheim-Zonder test. (8) Case report of fibroid obstructing pelvis, removed at time of cesarean; specimen.

January 7, 1932, Dr. F. C. Holden, of New York, gave a talk on office gynecology, which was most instructive. The meeting was unusually well attended, and all were greatly interested.

March 3, 1932, Dr. Henry C. Williamson, of New York, will speak on "Cesarean Section" and will show a moving picture of a low-cesarean done under local anesthesia.

May 5, 1932, a clinical meeting will be held at the new Margaret Hague Maternity Hospital, in Jersey City. A most profitable evening is anticipated.

CLEVELAND CLINIC FOUNDATION FELLOWSHIPS IN OTOLARYNGOLOGY

The Cleveland Clinic Foundation offers a limited number of 2-year Fellowships in Ear, Nose and Throat study with a varied and practical experience in this subject. Approximately ½ the time is spent in diagnostic work in the Clinic and the other half in hospital service.

It is desired that applicants be possessed of a fundamental training in the anatomy and physiology of the ear, nose and throat. They will be given a thorough training in history taking, diagnosis, medical and surgical treatment, and, in addition, will be given ample opportunity to do special laboratory work and to make original investigations. These Fellowships carry a payment of \$1000 for the first and \$1250 for the second year, and appointments are effective July 15 of each year.

A course of Fellowship Lectures on general sub-

jects, extending over 2 years, is given each Monday evening from September to May inclusive. Fellows are expected also to attend the weekly Pathologic Conferences and the regular weekly meetings of the Medical Staff, at which clinical problems are discussed.

Application blanks will be forwarded, upon request to the Secretary of the Fellowship Committee, Cleveland Clinic, Cleveland, Ohio.

AMERICAN ACADEMY OF PEDIATRICS; AN EXPLANATION

(A letter from Joseph H. Marcus, M.D., F.A.A.P. (Chairman of the New Jersey State Committee), in response to an inquiry from the Journal's Editor.)

The American Academy of Pediatrics is an organization intended to include, as nearly as possible, all those physicians in the United States and Canada who, by adequate training and proper standards of practice, deserve to be recognized as *Pediatricians*. It aims to include also, as Associate Members, those who by work in allied fields are able to give the Academy and its Members valuable aid in furthering its special objects. The Academy was formed because of an obvious need for a country-wide organizations of pediatricians to perform certain important services which have not been undertaken by any existing organization.

The *object of the Academy* is to foster and stimulate interest in *peditrics*, and to correlate all agencies and the varying phases of work for the welfare of children which properly come within the scope of *peditrics*. The Academy will, consequently, endeavor to accomplish the following purposes:

(1) To establish and maintain the highest possible standards for pediatric education in Medical Schools and Hospitals, pediatric practice, and pediatric research. (2) To perpetuate the history and best traditions of pediatric practice and ethics. (3) To maintain the dignity and efficiency of pediatric practice in its relationship to public welfare. (4) To promote publications, and encourage contributions to medical and scientific literature, pertaining to pediatrics; none of which objects are for pecuniary profit to members. It plans actively to further all of these purposes through national, regional and state committees.

The Inaugural Address was delivered by the Academy's first President, Dr. Isaac A. Abt, at the organization meeting in Atlantic City, June 12, 1931. The topic upon which he spoke was "The Aim and Scope of the Academy of Pediatrics", and his address was published, in full, in *The American Journal of Diseases of Children*, October 1931.

Fellows of the Academy are authorized to use the distinguishing letters F. A. A. P., meaning—Fellow of the American Academy of Pediatrics. The officers chosen for 1932 are: President, Dr. John L. Morse, Boston; Vice-President, Dr. Samuel McHamill, Philadelphia; Secretary and Treasurer, Dr. Clifford G. Grulee, Evanston, Illinois. The Executive Board is composed of: Drs. Louis C. Schroeder, New York City; L. T. Royster, University of Virginia; C. A. Aldrich, Winnetka, Illinois; William P. Lucas, San Francisco; Frederick F. Tisdall, Toronto, Canada.

The second annual meeting of the Academy will be held in New Orleans May 13 and 14, 1932.

AMERICAN BOARD OF OBSTETRICS AND GYNECOLOGY

We are informed by Dr. Joseph L. Baer, of Chicago, Chairman of the Committee on Medical Publicity, of this national Board whose chief purpose is to test and certify to the qualifications of physicians who desire to specialize in their practice of medicine as obstetricians and gynecologists, that examinations will be held shortly in 18 different cities of the United States of America, and Canada, as follows:

"The next written examination of applicants for certificate from the American Board of Obstetrics and Gynecology, will be held in the following named cities on Saturday, March 26, at 2 p. m. under direction of the examiners and assistant examiners of the Board:

Ann Arbor, Mich.; Atlanta, Ga.; Baltimore, Md.; Boston, Mass.; Chicago, Ill.; Cincinnati, Ohio; Denver, Colorado; Galveston, Texas; Grand Forks, N. D.; Indianapolis, Ind.; Iowa City, Iowa; New York City; Philadelphia, Pa.; Portland, Ore.; Rochester, Minn.; San Francisco, Cal.; St. Louis, Mo.; Toronto, Canada.

The examination will consist of questions in obstetrics and gynecology; is for Group B candidates, and applications must be accompanied by 50 "case records". Group A candidates are not required to take this examination nor to provide case records, and notice of the next oral and clinical examination for all applicants will be published at a subsequent date. For further information and details, apply to the Secretary, Dr. Paul Titus, 1015 Highland Building, Pittsburgh, Pennsylvania."

New Jersey holders of the certificate, or diploma, of this special board at the present moment are: Drs. Walt P. Conaway, of Atlantic City; Samuel A. Cosgrove, of Jersey City; W. E. Darnall, of Atlantic City; P. O. Hall, of Jersey City; Edward J. Ill, of Newark; W. B. Mount, of Montclair; R. B. Walker, of New Brunswick.

Public Relations

DEPRESSION HITS DIPHTHERIA

(From the December-January issue, *Public Health News*, published by the New Jersey State Health Department at Trenton.)

The lowest diphtheria record previously made in New Jersey, was practically cut in half during 1931; as figures for the year show that only 2051 cases of this disease were reported in the state. The nearest approach to this new low record was in 1926, when 4008 cases, nearly double the past year's number, were listed, and in 1930, the figure was 4162.

The wise health officer does not make sweeping predictions based on the records of 1 year, for diseases vary in prevalence. During the last decade, diphtheria in New Jersey was highest in 1921, with 7900 cases; reached its lowest mark in 1926; rose to 6000 2 years later, and fell again in 1930. The average annual number of reported cases for the 10-year period, 1921-1930, was 5542. Compared with any of these figures, however, the record for 1931 shows a striking decrease.

Is it not significant that this dramatic reduction in attacks of diphtheria came after years of applying scientific measures to reduce the ravages of this disease? Records indicate that between 1920 and the beginning of 1931, more than 430,000 children received diphtheria-preventive treatments of

toxin-antitoxin or toxoid at public clinics in New Jersey. In addition, an unknown number were given similar protection, *privately, by physicians.*

About $\frac{1}{2}$ the children in this state have received immunization against diphtheria; and last year the disease reached only $\frac{1}{2}$ its normal prevalence. Such promising results should stimulate health officials and physicians, not only to continue the work so well begun but, also, to secure immunization of a greater proportion of children below school age. Should this be accomplished, there is good reason to believe that a further, rapid reduction in diphtheria prevalence will take place. Why not? (If the recent antidiphtheria campaign county groups are "carrying on" as they should, and devoting special attention to pre-school children, such results will surely be obtained.—Ed.)

THE GRIEVANCE COMMITTEE

Harold Rypins, M.D., Executive Secretary, State Department of Education, Albany, N. Y.

(At the last Annual Meeting of the State Society, held in Asbury Park, there was some talk in the House of Delegates concerning the desirability of amending our New Jersey Medical Practice Act, by insertion of a clause which would give us a *Grievance Committee* similar to that provided for in the New York law. The matter was referred to the Welfare Committee, and by that body laid over until some more propitious time to ask for such legislation. Having reason to believe our members would like to know something more about the New York situation, we are reprinting the following report and editorial from the N. Y. State Medical Society Journal of Aug. 1, 1931.—Ed.)

The Committee on Grievances, of the New York State Department of Education, established under sections 1264-5 of the Practice of Medicine Act, has now been functioning for 4 years. As originally designed by its sponsors, its primary object was to provide a legally constituted body to protect the public by disciplining members of the medical profession who were guilty of improper practice. While the results accomplished by the Grievance Committee during this period show that the original object for which it was designed is being accomplished, the Committee's experience indicates that it is accomplishing 2 other functions as well; first, the protection of the medical profession itself against unfounded charges, and second, the raising of the standards of professional practice.

To date, the Committee has received 163 complaints against licensed physicians. Of these, 65 have been dismissed by the Executive Secretary on the grounds that the complaints alleged did not come within the legal purview of the Committee, and it is significant that, so far as can be determined, not 1 of these 65 complaints has ever been brought before any other tribunal. In other words, the fact that without expense a citizen can place a complaint against a physician before a legally constituted professional tribunal, even though he is advised that he has no proper grounds for such complaint, is sufficient satisfaction to forestall a large number of malpractice suits.

In these cases the Grievance Committee acts as a safety valve for disgruntled patients, and has undoubtedly saved many members of the profession from unpleasant newspaper notoriety and the expense of defending unwarranted malpractice actions.

Perhaps the best work of the Grievance Committee is accomplished in informal hearings before a sub-committee of 3 members, at which both the complainant and the physician complained against are permitted to tell their sides of the story without the necessity of a formal trial. Although the law does not require a physician to appear before the Committee unless he has been served formally in writing, the standing of the Committee is evidenced by the fact that not a single physician requested to appear at these informal hearings, nor any lawyer, has ever intimated any unwillingness to attend.

Of the 58 cases disposed of informally, approximately $\frac{1}{2}$ have been cases in which, after hearing both sides, the sub-committee concluded that the conduct of the accused physician had been proper, and that there was no just cause for a formal trial. The other $\frac{1}{2}$ have been cases in which there was a certain amount of evidence that the physician had either acted improperly, or had practiced too close to the borderlines of unethical conduct. It has been the policy of the Committee in these cases to give the defendant physician a serious warning and an admonition to improve his professional conduct. It is gratifying to note that, with a very small number of exceptions, it has not been necessary to recall any of those admonished physicians on later charges. There is no doubt that this method of handling physicians guilty of questionable practice has had an excellent effect upon not only the physicians directly involved but the profession as a whole; and this has been accomplished without publicity, or depriving the physician of any of his rights, in all cases in which such procedure is justified.

Only 17 cases have been referred to the Board of Regents; and with the exception of 1 case, where the Grievance Committee recommended 6 months' suspension and the Board of Regents dismissed the charges, the recommendations of the Grievance Committee have been sustained by the Board of Regents.

In all, 8 physicians' licenses have been revoked—2 for attempted abortion; 2 for aiding and abetting illegal practitioners; 2 for fraud and deceit in practice; 1 for violation of the narcotic law; and 1 because of insanity. One physician's license was suspended for 1 year because of his offering to commit an abortion; and another for 6 months for association with an unlicensed practitioner. Four physicians have been formally censured and reprimanded by the Committee—1 for improper advertising; 4 for association with illegal practitioners; and 1 for fraud and deceit in practice.

In addition, the Grievance Committee is authorized to arbitrate disputes between physicians, and between physicians and patients, and has successfully completed several such arbitrations.

The work of the Grievance Committee entails a sacrifice of much time and energy by its members, for which they receive no compensation whatsoever. They are accomplishing benefits both to the public and to the medical profession, and their work is now well established upon a firm basis. As a result of their work, similar disciplinary bodies will shortly be started in several neighboring states.

EDITORIAL CONCERNING THE GRIEVANCE COMMITTEE

The Grievance Committee that was appointed according to the provision of the Medical Practice Act passed in the spring of 1926 (Public Health Laws, sections 1264-5) held its organization meeting on September 2, of that year, as stated in

COMPLAINTS AGAINST LICENSED PHYSICIANS CONSIDERED FROM
SEPTEMBER, 1928, TO JUNE, 1931

Complaints	Violation	Disposed of by			Regents Action				Pending
		Secretary	Informal Hearing	Formal Hearing	Revocation	Suspension	Censure	Dismissed	
31	Improper Advertising	16	14	..	..	..	1	..	..
20	Attempted Abortion	8	8	1	2	1	..	..	..
30	Aiding Illegal Practitioners...	10	6	1	2	1	4	..	6
16	Ambulance Chasing .....	..	12	2	..	..	..	..	2
17	Fraud and Deceit	3	6	..	2	..	1	1	4
13	Malpractice	8	5	..	..	..	..	..	..
9	Unethical Conduct	3	3	..	..	..	..	..	3
1	Narcotic Violation .....	..	..	..	1	..	..	..	..
1	Insanity .....	..	..	..	1	..	..	..	..
1	Arbitration .....	..	1	..	..	..	..	..	..
24	Miscellaneous	17	3	..	..	..	..	..	4
		65	58	4	8	2	6	1	
163	Total	127			17				19

this Journal of September 15, 1926, page 802. Major articles describing the work of this Committee have appeared in this Journal from time to time as follows:

"The first year of the Medical Practice Act", Rypins, Journal of December 15, 1927, page 1359. Editorial, July 1, 1928, page 787.

"The Grievance Committee in the Medical Practice Act", Wightman, Journal April 1, 1929, page 391.

"The Work of the Grievance Committee", Rypins, Journal September 1, 1929, page 1073.

"The Standards of the Grievance Committee in the Acceptance of Rebates", Journal May 1, 1930, page 547.

The Grievance Committee, being an entirely new body, had to adapt its methods to conditions as they arose; but in the course of 2 or 3 years, its experience enabled it to develop methods which have proved eminently satisfactory and successful. Physicians throughout the state are not yet fully aware of the scope of activities of the Grievance Committee, nor of the methods of its action, for the Committee conducts its work quietly and with due regard to the feelings and reputations of the physicians investigated. Physicians will, therefore, be interested in the report of its work, which appears on page 952 of this Journal.

The primary object of the law establishing the Grievance Committee was to provide a committee of medical men who should hear charges of unprofessional conduct brought against physicians, and should report their findings to the Department of Education, under whose jurisdiction and authority the Committee acts. The licensing of practitioners of medicine, the revocation of their licenses, and the investigation of complaints that may involve revocations are functions of the State Department of Education; but the investigation and prosecution of practitioners for illegal professional acts is a function of the Attorney General also. Specifically, the Grievance Committee is a part of the machinery of the State Department of Education. It is a sub-committee of the Regents of the University of the State of New York, and reports its findings to the Regents.

(To be continued)

In Lighter Vein

Worth Patenting

"So that new girl of yours is lazy?"
"Lazy! Why, the other morning I caught her putting popcorn into the pancakes to make them turn over themselves."—Jester.

Get Down and Dig

Football Coach (to players): "And remember that football develops individuality, initiative, and leadership. Now get in here and do exactly as I tell you."—Life.

Elegy in a Traffic Jam

The curfew tolls the knell of parting day,
A line of cars winds slowly o'er the lea,
A pedestrian plods his absent-minded way
And leaves the world quite unexpectedly.
—California Highways.

Hark! the Angels

The latest type of motor-horn, we are told, reproduces the notes of a harp. This is a really subtle method of warning pedestrians to get out of the way.—The Humorist.

New Alibi

"What do you mean by coming home at this hour?"
"I didn't mean to come home at this hour, but the darn place was raided!"—Judge.

When the Favorite Flops

"Isn't it dreadful? The minister's son has decided to become a jockey. He was to have been a minister, you know."
"Well, he'll bring a lot more people to repentance than he would as a minister."—Wall Street Journal.

Woman's Auxiliary

ANNOUNCEMENT FROM THE PRESIDENT

Mrs. H. Roy Van Ness

The Annual Meeting of the Medical Society of New Jersey will be held June 15 to 17, at Had-don Hall, Atlantic City.

The Executive Board of the State Society Auxiliary will meet Wednesday, June 15, at 2.30 p. m. in the Derbyshire Room. The General Meeting of the Auxiliary will open Thursday, June 16, at 9.15 a. m. in the Derbyshire Room.

There will be but 1 general session this year and it is hoped that every Delegate and every member will be present.

An Executive Board meeting will be held Thursday, June 16, at 3 p. m., in the Derbyshire Room. The annual luncheon will be held Friday, June 17, at 1 p. m. in the Rutland Room, to which the doctors are invited.

We have only a few months in which to attain our goal. Let us all make an effort to have our Committee Chairmen cooperate with the corresponding State Auxiliary Chairmen; to send in the county reports by April 15; to carry out requests made by the State Auxiliary; to have an Advisory Board of doctors appointed; a county constitution; to have annual meetings in May, at which time the newly elected President explains her program for the year; and to have every county represented at the Convention in June, with a report of some of the work which has been undertaken in health education, which we have been asked to do this year.

If your annual election was held in October, and you intend to change to May (according to the request from the National Auxiliary), let me recommend the procedure already adopted by some of the counties of presenting the same slate for reelection. The time from October to May is too short for the officers to carry out their program of work.

Items of Interest from the National Auxiliary

The Chairman of the Committee on Press and Publicity urges all Auxiliary women to read the delightful letter from our national President-Elect, Mrs. Walter Jackson Freeman, appearing every month in the Bulletin of the American Medical Association. If your husband has not brought home the recent Bulletins, remind him of that duty. Mrs. Freeman's letters are inspiring, informing and helpfully suggestive.

When a book review is desired on the program of Auxiliary meetings, it is gratifying to note what wholesome and fine books are found particularly fitting for the purpose: The Medicine Man in Texas, Magnificent Obsession, Dr. Serocold, Victim and Victor, The Microbe Hunters; the last named, might well be incorporated in the most substantial educational program.

Atlantic County

Reported by Mrs. Maurice Chesler

The Woman's Auxiliary to the Atlantic County Medical Society met on Friday evening, February 12, at the Chalfonte Hotel. Mrs. James H. Mason presided.

Preceding the routine business, Dr. Henry O. Reik honored us with his presence and spoke on the "Progress of Our Auxiliaries", which proved very enlightening and was thoroughly enjoyed.

Mrs. James North reported on our recent Card Party at the Claridge Hotel the proceeds of which were \$89.40.

A motion by Mrs. Maurice Chesler, that the Auxiliary pay for insulin required by a diabetic boy, for a period of 3 months, was adopted.

It was also voted to contribute \$25 to the Visiting Nurses' Association of Atlantic County, to help that organization in its good work.

After the meeting, cards were enjoyed.

Those attending were: Mrs. James H. Mason, Mrs. Percy Clark Joy, Mrs. Samuel Gorson, Mrs. Barney B. Barab, Mrs. W. Blair Stewart, Mrs. Sidney Rosenblatt, Mrs. Bernard Crane, Mrs. E. H. Harvey, Mrs. William O. Roop, Mrs. Herman Kline, Mrs. B. H. Timberlake, Mrs. C. D. Sinkinson, Jr.; Mrs. Lawrence A. Wilson, Mrs. Henry O. Reik, Mrs. James A. North and Mrs. Maurice Chesler.

Bergen County

Reported by Mrs. Harrison B. Wilson

The Woman's Auxiliary to the Bergen County Medical Society held its regular monthly meeting at the Holy Name Hospital, February 9, at 8.30 p. m. Vice-President Mrs. Roy Black presided, because of the illness of our President, Mrs. Joseph Morrow.

A report of the Benefit Bridge, held on January 29, at Bergen Pines Hospital, was given, and a vote of thanks was extended to Mrs. William Harryman, Chairman of the party, for her very efficient handling of the affair.

The Vice-President told us of the plan to have the present officers remain in office until the new fiscal year has been determined.

After adjournment of the business meeting, Mrs. Black introduced Mr. John H. Schriever, manager of the Medical Service of Parke Davis Company, who spoke upon biologic products, smallpox vaccine and typhoid vaccine. Pictures were shown to illustrate the talk. The members enjoyed the talk very much, and an interesting discussion followed.

Refreshments were served by the nurses of Holy Name Hospital.

Burlington County

Reported by Mrs. J. Howard Hornberger

The regular meeting of the Woman's Auxiliary to the Burlington County Medical Society was held at the home of Mrs. Daniel F. Remer, Mt. Holly, on January 26 at 2.30 p. m.

Mrs. Remer, Chairman of the Committee to meet with the Hospital Committee, at the Burlington County Hospital, for Christmas gifts to patients, reported that they had given 47 fruit baskets, and 12 children toys, totaling 59 gifts from the Auxiliary.

Our President, Mrs. Hartman, reported that she and 3 other members had attended the open Executive Board meeting, held in Trenton, January 18, and told of the activities there. She also appointed Mrs. Eugene Meyer, Moorestown, Chairman of the Committee on Hygiene and

Health, and requested that we get our pamphlets and literature for use, through her, in other organizations.

Our next meeting will be held as a "reciprocity" meeting, in the Community House in Moorestown, March 21, at 2.30 p. m. We will have a guest speaker; music and tea will be served, and other auxiliaries will be our guests along with representation from local organizations.

At the close of the meeting, tea was served by our hostess with Mrs. Kuder, mother of Dr. Joseph Kuder, presiding at the tea table.

Essex County

Reported by Mrs. Richard M. Rogers

The meeting of January 18, of the Woman's Auxiliary to the Essex County Medical Society, was held at the Academy of Medicine in Newark, which will hereafter remain its official headquarters. This was the first meeting with the new officers; the new President, Mrs. Theodore Teimer, presided.

The annual benefit for the Scholarship Fund is planned for sometime early in March, and is to be an evening Fashion Show and Bridge, to be held at Kresge's Department Store.

Mrs. F. J. McCauley gave an interesting report of the proceedings of the State Auxiliary's open meeting of Executive Board, which was held in Trenton on January 11.

The Secretary read changes to be made in the Constitution as recommended by the national organization, which places the annual meeting in May, instead of October, as heretofore. This also provides that the recently elected officers, because of the change in time, be carried through the next fiscal year. These changes were accepted by a vote of the members as officially part of the constitution.

Official announcement was made of the series of "bridges", which was started earlier in the year and is to continue through the season, at the homes of various members who have offered to undertake this in order to swell the Scholarship Fund.

The President announced that the March meeting would be the "big event" of the year and would take the form of a reciprocity meeting with other women's organizations of the county invited to share in the program. Further, and more definite, plans will be arranged by the Executive Board.

Mrs. H. Roy Van Ness, formerly President of Essex County Auxiliary, was introduced in her official capacity as President of the State Society Auxiliary. She gave her version of what work we are expected to do, and, with her usual enthusiasm, inspired all to appreciate just what big possibilities there are ahead of the organization, if everyone will put her shoulder to the wheel and help push the work ahead. She urged attendance at meetings and conventions, to see just what is being done, and so to become more keenly interested in the work. "Health Education", chiefly of ourselves, was urged as the new work; to learn just what is being done in other communities, along this line, and to plan coöperation and advancement.

June 15, 16 and 17 were announced as the dates of the State Medical Society Convention to be held at Atlantic City. Headquarters will be at Haddon Hall.

Mrs. Don Epler reported that she had secured 2 appointments for Mrs. Taneyhill to broadcast over station WAAM: March 9, from 3:30 to 3:45 p. m., and May 12, from 2:30 to 2:45 p. m.

Mrs. John F. Hagerty was appointed Chairman of the Nominating Committee.

The President introduced Dr. James Lowrey, President of the Essex County Medical Society, who opened his address by thanking the women for their good work and interest, and especially for their efforts in securing a radio broadcast.

Dr. Lowrey's address, which was extremely well received by all, was divided into 3 topics:

His first being the importance of "periodic health examinations" and the necessity of educating the public to the importance of this as a certain means of controlling the diseases of adult life and cutting down the mortality statistics, which run very high for those diseases. Early detection of many diseases means cure, or, at least, prolongation of life.

His second topic considered the field of "mental hygiene", the importance of early detection of mental cases and their proper handling when detected. He quoted alarming statistics to show that—*1/2 of the hospital beds in the U. S. are used for mental patients.* He stressed the importance of bringing this subject into the programs of the auxiliary.

The third topic covered the "relation of the physician to the hospital", and clearly proved the uselessness of the hospitals without efficient coördinated medical staffs. He also read the resolutions recently adopted by the Essex County Medical Society regarding this same issue.

Our next speaker was Dr. John F. Hagerty, President of the Medical Society of New Jersey. He spoke to us of the sort of work he thought we ought to do in order to justify our existence and help the parent society. One of the things we should undertake to do, he told us, is to educate the public to recognize just how much it owes to organized medicine for many of its present comforts. He told us some of the romance of the discovery and the cause of yellow fever, and typhus, and the many men who had offered themselves as victims in order to facilitate the discovery and cures for diseases that have in times past been veritable scourges.

After adjournment, the members were received in the parlors of the Academy, where the Social Committee served refreshments.

Gloucester County

Reported by Mrs. Henry B. Diverty

The regular meeting of the Woman's Auxiliary to the Gloucester County Medical Society was held Thursday evening, January 21, at the Oakwood Country Club. The President, Mrs. Elwood Downs, was in the chair.

The following members were present: Mrs. J. Harris Underwood, Woodbury; Mrs. Ralph Hollinshead, Westville; Mrs. Harry Stout, Wenonah; Mrs. Samuel Ashcraft, Mullica Hill; Mrs. F. G. Wandell, Clayton; Mrs. William Pedrick, Glassboro; Mrs. Chester I. Ulmer, Gibbstown; Mrs. A. B. Black, Mickleton; Mrs. Wilson Stout, Wenonah; Mrs. Fuller Sherman, Woodbury; Mrs. William Crain, Woodbury and Mt. Ephraim; Mrs. B. Mrs. David Brewer, Mrs. Ulmer and Mrs. Diverty, Woodbury.

The Secretary reported a meeting of the officers, held January 6 at the home of Mrs. Downs,

preceded by a luncheon. Those present were as follows: Mrs. Underwood, Mrs. William Brewer, Mrs. David Brewer, Mrs. Ulmer and Mrs. Diverty.

After adjournment a social hour followed.

The members of the Gloucester County Medical Society were holding a business meeting at the same house and hour of our meeting and after adjournment we were invited to hear their speaker of the evening, Dr. John Kolmer, of the Graduate School of Medicine of the University of Pennsylvania. The subject, "Specific Treatment of Pneumonia", was exceedingly interesting to us all. Later, we were ushered to the dining room, where a fine collation was served.

Hudson County

Reported by Mrs. James Murphy

The regular monthly meeting of the Auxiliary to the Hudson County Medical Society was held February 1, at the Y. W. C. A., in Fairmount Avenue, with the President, Mrs. George M. Culver, presiding; and 31 members present.

In the absence of the Secretary, Mrs. Ruoff read the minutes of the previous meeting and they were approved as read.

Miss Seigelbaum, of the Y. W. C. A., spoke on the work of the organization, and told of the many ways in which it was trying to help unemployed girls.

Mrs. Rowe then made an appeal for the Emergency Relief Fund of the Y. W. C. A. Mrs. Barishaw moved that the Auxiliary donate \$25. Mrs. Jaffin seconded the motion and it was carried.

Mrs. Perlberg, the Treasurer, reported on the financial status of the Auxiliary. Two new members were welcomed: Miss Clara Wilkinson and Mrs. Benjamin Joseph.

The afternoon was then given over to Dr. Norman L. Rowe, who showed his Moving Pictures of a Trip Abroad, lecturing on them as he went along. It was a most enjoyable afternoon—those who had already been abroad, living over again the joys of the trip; and those who had not been, realizing what a treat was in store for them, possibly, in the near future.

Dr. Rowe was given a rising vote of thanks for his kindness in giving up a whole afternoon for our pleasure.

Tea and the usual social hour followed.

Ocean County

Reported by Mrs. Eugene G. Herbener

The Woman's Auxiliary to the Ocean County Medical Society held its regular meeting January 22 at the residence of Mrs. Frank Brouwer, 609 Main Street, Toms River.

The meeting was called to order promptly at 3 p. m. The minutes of the previous meeting were read and approved. Mrs. Alfred Woodhouse, Treasurer, reported that the net proceeds from the Card Party held at Toms River in November amounted to \$7.70.

Mrs. F. N. Bunnell reported that she used this money to purchase subscriptions to Hygeia, which she had placed in the following schools of Ocean County: Barnegat, Point Pleasant, Lakewood, Tuckerton, and Toms River.

Ways and means to help the unemployed of the county were discussed, after which the meeting was adjourned.

Passaic County

Reported by Mrs. Burt W. Botbyl

The Woman's Auxiliary to the Passaic County Medical Society held its regular meeting January 18 at the Woman's Club.

An address was given by Mr. A. H. Meese, Director of the North Jersey Training School for Girls; questions and discussion followed.

A donation of \$10 was sent to the Mayor's Fund for Relief of the Unemployed; \$10 to the Morning Call Milk Fund for Babies; and \$10 to the Poor Master.

A social hour followed with refreshments.

County Society Reports

ATLANTIC COUNTY

John S. Irvin, M.D., Reporter

The regular meeting of the Atlantic County Medical Society was held February 12, in the Chalfonte Hotel, with Dr. H. S. Davidson presiding and 40 members present. Minutes of the January meeting were read and approved.

Dr. W. Blair Stewart, as a special report for the Public Health Committee, urged all members to aid the State Board of Medical Examiners in ridding the city of quacks and semi-quacks. Several have been forced recently to leave Atlantic City but there are still some that should be brought to book.

Dr. W. E. Darnall reported that the Library was still purchasing books and steadily progressing.

Dr. W. P. Conaway reported that the Radio Broadcast Program is completed with the exception of the last 2 weeks in March and he felt sure there would be no difficulty in filling those vacancies.

Dr. C. B. Kaighn, Chairman of the Board of Censors, recommended the transfer of Drs. W. B. Reynolds and H. R. Lawrence, to Honorary Membership. These men were still active members and good workers, but the Committee felt this was a fitting honor to bestow upon them. This motion was carried and the transfer authorized.

Dr. E. H. Nickman was recommended for active membership in the Society, and was duly elected.

Applications for membership were read by the Secretary from Drs. A. E. Siegal and Benjamin F. Gordon, now residing and practicing in Atlantic City and formerly of Philadelphia. Dr. Siegal's application was by transfer from the Philadelphia County Medical Society. The applications were referred to the Board of Censors for proper action.

Dr. W. J. Carrington reported that the State Society-Rutgers University Post-Graduate Study Committee would sponsor 2 Courses of Lectures this season: One in Obstetrics and Gynecology—consisting of 4 lectures in Obstetrics by Drs. Bland, Montgomery, Ulric and Lowe and 4 in Gynecology by Dr. F. C. Holden; starting March 31, and continuing each Thursday night until May 19. The other will be on Recent Advances in Various Fields of Medicine, beginning Wednesday, April 6, and continuing until May 25. All lectures will be from 8:30 to 10 p. m., in the Nurses Home of the Atlantic City Hospital, 1907 Pacific Avenue. The price for each course, separately, is \$15 and the 2 courses for \$25.

There were only 8 lectures in previous years and only 1 Course.

Dr. Carrington stated that the lectures were being well received in North Jersey, particularly in Trenton and Newark, and expressed his desire that members take advantage of these lecture opportunities and stated that it was necessary for 20 to enroll, as the minimum number required to establish the plans here. He has tickets and application blanks and will be glad to explain the course, in detail, to anyone.

Dr. D. N. Rappaport applied for reinstatement in the Society, and his request was referred to the Board of Censors.

Dr. W. D. Olmstead wrote that he had reestablished his practice in Bloomfield and wished to transfer his membership from the Atlantic to the Essex County Society. The Acting Secretary stated that a letter recommending the transfer had already been written to the Secretary of the Essex County Society.

Dr. S. E. Bateman tendered his resignation because of his change of address. This was accepted.

The letter from W. S. Cuthbert regarding drug addicts, which has been sent to each member of the Society, was read by the Secretary and commented upon by Dr. Carl Surran, who stated that the purpose was to protect the physician, and he requested coöperation of the medical profession in Atlantic City and County to get rid of this form of vice.

Dr. Davidson then presented Dr. James J. Richardson, of Washington, D. C., and made him a member of the Society for the evening so that he might enter into the discussions.

Dr. H. I. Silvers moved that the Society invite the A. M. A. Convention of 1933 to Atlantic City and that the Secretary be instructed to write such a letter of invitation, and also that the Secretary be instructed to write to the President of the State Society and request coöperation of the State Society in this invitation. The motion was carried.

The scientific program was presented by Matthew White Perry, M.D., of Washington, D. C., formerly Clinical Professor of Medicine at Georgetown University School of Medicine. Dr. Perry's paper, entitled "Neglected Considerations Concerning Colitis", was read, discussed by Drs. Silvers, Andrews, Scanlan, Barbash and Davidson. (Dr. Perry's paper will later be published in the Journal.)

Atlantic City Hospital Staff Meeting

Dr. Joseph H. Marcus, Secretary

The General Staff of the Atlantic City Hospital held its monthly meeting in the auditorium, January 22, with Dr. Samuel Salasin, Vice-President, in the chair.

The following officers were unanimously elected for the ensuing year: President, Samuel L. Salasin; Vice-President, Charles B. Kaighn; Secretary, Joseph H. Marcus; Acting Secretary, Harold S. Davidson; Treasurer, John S. Irvin.

The scientific program was presented by Dr. D. Ward Scanlan, who reported a case of "Cerebral-aneurysm", the patient demonstrating particularly well the grasping reflex.

Dr. David B. Allman, Chief of Surgical Service, and Dr. Harry Subin, assistant, reported for the Surgical Department as follows:

PROCEDURES AND STATISTICS

Strange as it may seem, the depression also affected our surgical wards during August, September and October 1931; not with an increase in the number of cases, as you would expect, but rather a decrease as compared with preceding years. The total number of admissions was 237, as against 397 in 1930, and 308 in 1929. This can be explained in 3 ways. (1) The small number of laborers and mechanics employed, thereby considerably cutting down occupational injuries of any consequence; (2) the fact that genito-urinary infections, formerly treated by the Surgical Department are now admitted directly to the Genito-Urinary Department; (3) the fact that increased efficiency on the part of the Resident physicians has made it possible for fractures to be set and radiographs to be taken almost immediately, thus making a dispensary case out of a former admission. This latter procedure has kept many patients with fractures about the fore-arm and elbow from occupying ward beds.

There were 23 deaths, as follows: Penetrating gun-shot wounds of abdomen and chest, 3. Generalized carcinomatosis—a 65 years old male—1. Compound or comminuted fractures of lower extremities, that practically never came out of shock, 3 cases. One case of ruptured gastric ulcer did well for 2 weeks after operation and then suddenly developed cardiac failure. A case of septicemia from septic arthritis, in a 62 years old male, who was inherited from the preceding service. Another case of gangrene of the leg, resulting from a femoral thrombosis, passed over to us from the Medical Service. Intussusception in a child 8 months old, in which the distal portion of the cecum telescoped into the ascending colon. This child lived 10 days after operation and died apparently from toxemia. One case of gasoline burns covering almost the entire body. Concussion, with possible fracture, in a boy 23 years old, who never regained consciousness after admission. Fractured skull with pulmonary edema. A case of cholecystitis which was referred by the Medical Service, developed uremic convulsions and died before we could help her by operation. Two postoperative deaths from empyema of the gall-bladder. One case of streptococcal infection beginning with ischiorectal abscess; this man had chills and a temperature from 105°-106° before admission. Three cases of intestinal obstruction due to strangulated hernias; 2 of these patients were practically dead on admission. A patient with multiple fractures of pelvis and ribs, died in shock. Another traumatic chest case, a colored man with hemorrhage into the chest cavity following fractured ribs ended in death.

Fractured femurs. The customary share of fractured femurs appeared, with those in children and infants in abundance. Heretofore, a service was never finished without at least 1 or 2 open reductions. This service succeeded in getting satisfactory results in every instance without resorting to open reductions. There is no question about the superiority of spinal anesthesia for reduction of fractures of the lower extremity. Absolute relaxation of muscles of the lower extremity cannot be achieved by inhalation anesthesia without pushing to the extreme, which invites danger of ether pneumonia, and is, of course, to be thought of very carefully in the aged patient. The ease with which the fragments of a femur or tibia can be manipulated under spinal anesthesia is most gratifying to anyone who has had unpleasant experience of trying to pit his strength against the pull of powerful thigh muscles in a partial state of contraction under general anesthesia.

Selection of anesthesia. The circumstances surrounding a case should indicate the selection of anesthesia. For example, we had a colored woman, over 70 years of age, admitted to the ward following a most unusual accident. As the patient was walking along the street, a bureau was being hoisted by some moving men through a third story window. The men lost their hold and the bureau fell and struck the patient in a glancing fashion. She received a lacerated scalp (no fractured skull), and a Pott's fracture of the left ankle, with posterior dislocation of the foot. Her shock was too great to risk early reduction of the foot. Within 24 hours, she reacted from shock and her temperature began to rise rapidly. Closer examination revealed a failing heart, markedly enlarged to the left, and râles at the base of both lungs. We had to get her out of reverse Fowler's position early and get her on a back rest in order for her to breathe. The dislocated foot and fractured leg continued to give her great pain. Her heart was too bad for general anesthesia. Therefore, a solution (4%) of neocain was injected into the site of fracture and into the ankle box. After a few minutes, reduction was easy and painless. Relaxation was good. A plaster bandage was applied and the patient kept in a chair as much as possible. She was discharged from the hospital within 11 days. This method of reduction is of distinct advantage in the aged, particularly when there exist contraindications to general anesthesia and to spinal anesthesia.

Neocain spinal anesthesia. Only certain selected patients were given spinal anesthesia on this service. Neocain was the anesthetic of choice. The failures were comparatively few and occurred, in each instance, because of faulty technic. In giving neocain to all types of patients, and for various conditions, I have had no more than 5 failures out of 100 injections. These, I am certain, were due either to an improper mixture of spinal fluid with the drug or a too low injection of solution for an abdominal operation. Two points are of outstanding importance and of frequent oversight in using neocain as a subarachnoid block. First, to give the injection high enough; either the second or third lumbar interspace for abdominal and pelvic anesthesia; second, to use at least 3.5 to 4 c.c. spinal fluid as diluent.

Homicide cases. War surgery was, for a while, of interest because of the new methods of treatment and the kind of injuries to be dealt with. The post-war period, however, has added another chapter to surgery. The racketeers have endeavored, and in the majority of cases, have succeeded, in producing injuries that do not leave anything but a corpse for the surgeon. Their bullets are, in 90% of the cases, aimed for the abdomen, and the remaining 10% for the head.

It seems to be a fad with those who shoot their victims through the head, to place the muzzle of the gun directly over the mastoid. We had 5 gunshot wounds in this service: 4 were shot through the abdomen and the fifth through the lower right chest. The racketeer's hand must have shaken slightly in this latter case and tilted the gun a trifle upward. Three of these died from multiple penetrating wounds of either the small bowel or bladder. Racketeers are also becoming more scientific in their killings, by using dum-dum bullets. Soldiers had a chance with surgery, but the racketeer's victim heads straight for the morgue without having anything but a brief ride to the operating room. Surgery is too late, or impossible, in the majority of cases.

Fractured skulls. Each year the question of a trephining operation becomes less and less important except in cases of depressed fractures of the skull. Thanks to the work of Temple Fay and others, the value of dehydration by spinal drainage and intravenous glucose solution, the number of decompression operations, and consequently the number of deaths from fractured skull and edema of the brain, is on the decrease. The dehydration treatment, however, must not be carried too far. A level of body fluids must be maintained whether there is a fractured skull or not. Hence, it is a good routine to keep the skin active and moist, while draining spinal fluid. We found it quite serviceable, after having performed several spinal taps within 24 hours in very severe head injuries, to give normal saline by hypodermoclysis and after the patient had been able to take 500 c.c., very slowly under the skin, to begin intravenous injections of glucose—20 c.c. of a 50% solution once or twice a day. I feel that superhydration in 1 or 2 head cases caused death. After we changed the technic a bit, as suggested above, we admitted 2 children with very severe head injuries. One fell out of a third story window and another was struck by a machine with such force that she received a comminuted fracture of the nasal bones, in addition to a fractured skull. Both of these patients, with whom we did not carry the dehydration too far, recovered.

Appendicitis. There were 26 cases of appendicitis operated upon on this service, and, as usual, most of them were ruptured and gangrenous. The residents on duty at the time will certainly have no trouble in recalling them since their dressings must have become nightmares. Several of the cases of ruptured appendicitis occurred in children under 10 years of age, and several had been ruptured 4-5 days before we operated. They were mighty sick, of course. We stressed particularly the use of normal saline solution by hypodermoclysis and practically nothing by mouth in these very toxic cases. In some patients, intravenous glucose solution was used.

Our treatment of varicose ulcers. Large varicose ulcers of the leg requiring hospitalization have long been problems of management and saving of hospital days. So long as possible, patients remain ambulatory, and come to the dispensary for injections or strapping. When hemorrhage or spreading infection occurs, however, admission to the ward is necessary. A colored woman, admitted, had been treated for a long while for a varicose ulcer on the leg about 3 in. in diameter. The pain was too severe to permit the extremity to hang down, thus preventing her from sitting, standing or walking. Under gas anesthesia, the writer did a débridement of the ulceration, washed it with hot saline solution and then cleansed it with iodine and alcohol, washing away the excess. The excavated area was well packed with sterile vaseline gauze and a snug plaster bandage applied. She was comfortable the next day and was then given a pair of crutches. In a few days, she was discharged and told to return in 2-3 weeks to change the cast. This method of treatment of otherwise serious varicose ulcers has proved quite satisfactory to the patients and the hospital.

Moulded plaster splints. Speaking of plaster bandages, their value in fractures of the fore-arm, and particularly near the wrist is steadily increasing. The so-called moulded splint consists of a series of plaster bandages wrapped evenly and snugly, without any padding, over the fore-arm and hand, and then manipulated to the best ad-

vantage of the fragments beneath; really a modification of the sugar-tong splint for fractures of the fore-arm, except that the elbow is not completely immobilized. For example, a fracture in the lower half of the radius and ulna (not a true Colle's fracture) can be reduced but cannot be maintained in good position. A few wrappings of plaster bandages and further manipulation of fragments, or immediate maintenance of fragments, is possible because of the fact that the position is not sacrificed by application of splints and extra padding that often will not retain the fragments in their new position, and if the least further correction is necessary while working under the fluoroscope, the splints are prohibitive and the soft plaster bandage can still be serviceable in further manipulation. The fragments can then be held until the plaster hardens sufficiently to remain as a permanent splint. The principle caution to be observed is that the circulation be not interfered with and that the bandage shall be evenly distributed: the latter avoiding nerve pressure.

BERGEN COUNTY

Charles H. Littwin, M.D., Reporter

The regular meeting of the Bergen County Medical Society was held at Holy Name Hospital, February 9, and about 70 members attended; Dr. Walter Schmidt, presiding.

The minutes of the last meeting and also of the Executive Committee's meeting, were read and approved.

Dr. Sarla reported the finances of the Society to be in excellent condition, although 24 members are in arrears.

Dr. Corn reported for the Cancer Committee that but 2 of its members were interested enough to attend committee meetings, and he thought that perhaps naming a new committee was advisable.

Dr. Farmer reported that the Public Relations Committee was formulating plans for the year.

The Business Committee, of which Dr. James is Chairman, strongly endorsed the Passaic-Bergen Mercantile Exchange.

A resolution on the death of Dr. Cone was passed and is filed with the minutes.

The following men were elected to regular membership: Drs. Paul Angellillis, Henry R. Balze, and Charles Prather; to Associate Membership: Drs. Frank Sava and Ward C. Dennison. The applications of Drs. Samuel L. Lieberman and Raynold R. Berke for Junior Membership and Dr. Paul J. Buckley to regular Membership, were received.

On the unanimous vote of the Society, Dr. Chester Stone was changed from a regular to an Associate Member.

Dr. Roemer, President of the Passaic County Society, extended an invitation for Bergen to join with Passaic for the March meeting, to hear Drs. Morris Fishbein and Ira Wile.

On motion of Dr. Littwin the invitation was accepted.

The merits of the Health and Accident Policy of the State Society were presented by Mr. Blanksteen, representative for the Insurance Company.

Dr. Corn moved that \$1000 be transferred to the Savings Account, and the motion was adopted.

The dues of the delinquent members were ordered paid by the Society for this year, on the motion of Dr. Littwin; and, the Secretary was

instructed to write each one instructing him to get in touch with the Membership Committee with an explanation.

It was regularly voted that the Society engage an Executive Secretary for a period of 1 year, at a salary of \$1000, and that the Executive Committee be empowered to secure such a man.

The scientific program was as follows: "Public Relations and the County Medical Society", by Dr. Joseph M. Kuder, of Mounty Holly, President of the Burlington County Medical Society last year; and "Recent Studies on Peritonitis", by Dr. Frank Meleney, Attending Surgeon, Presbyterian Hospital, New York City.

The meeting was adjourned about 11.30 and a collation was served in the Nurses' Dining Hall.

CAMDEN COUNTY

R. L. Sharp, M.D., Reporter

The regular monthly meeting of the Camden County Medical Society was held in the Camden City Dispensary on Tuesday, February 2, with President E. G. Hummel in the chair.

The scientific program consisted of an essay on "Recent Advances in Bacteriology", by Dr. Henry B. Decker, and that subject was further discussed by Drs. Hyman Goldstein. Dr. J. P. Brennan gave a paper on "Mastoid Disease", and Dr. Alfred M. Elwell, a paper on "Sequels and Complications of Mastoid Disease". Discussion of this was opened by Drs. A. H. Shafer and E. R. Hirst, who were followed by Drs. O. R. Kline, Levi Hirst, Clara Horner Rodger, J. S. Shipman, and B. F. Buzby.

There were 55 members present.

CAPE MAY COUNTY

Eugene Way, M.D., Reporter

A special meeting of the Cape May County Medical Society was held conjointly with the Medical Club of Ocean City, at the Atlantic Shore's Hospital, Somers Point, February 19, with 18 in attendance.

The meeting was called to order by Dr. C. Eugene Darby, President of the Ocean City Club, and subsequently turned over to Dr. Allen Corson, President of the Cape May County Medical Society.

Dr. R. Rastin White, Superintendent of the Atlantic Shore's Hospital, exhibited a patient whose condition showed Berger's symptom; Dr. John Whitacar, a case of cervical adenitis with extensive sloughing, following scarlet fever, which was healing under skin grafting. Dr. C. E. Darby reported a "Case of Spina Bifida" which terminated fatally in 1 week. Dr. John Townsend reported a "Case of Spinal Meningocele" in a girl of 12 years, who was normal physically and mentally in all other respects. Dr. White read an interesting paper on "Gall-Bladder Diseases", stressing the need of drainage in certain cases and the early removal of gall-stones when properly diagnosed by x-rays. He was not an advocate of the removal of the gall-bladder, except in case of malignancy. Dr. Robert A. Bradley, roentgenologist, gave an address on "Gall-Bladder Diseases", illustrated by exceptionally fine x-ray pictures. John Freile, pathologist, spoke on "Liver and Gall-Bladder Conditions", as found in his research department. Dr. John Whitacar gave a

talk on "Acne" and, after reviewing the manifold and usually unsatisfactory plans of treatment, said that he had obtained the best results by puncturing the papules and giving intravenously 15 gr. of cacodylate of sodium every fourth day. Dr. Clarence W. Way gave an address on "Exophthalmic Goiter", reviewing the history of 6 cases now under his care, 2 of which had been greatly benefited surgically while the others made satisfactory improvement by medical treatment.

An interesting discussion on the addresses was then held, after which Dr. White piloted those present into his dining room where a splendid collation was served.

A vote of thanks was given Dr. White, and the meeting adjourned at 11.30 p. m.

ESSEX COUNTY

Associated Physicians of Montclair and Vicinity

Cyril S. Kirkby, M.D., Secretary

The Associated Physicians of Montclair and Vicinity met at the Elks' Club, January 22, to hear Dr. Sydney R. Miller, Associate in Clinical Medicine, Johns Hopkins University, read an interesting and comprehensive paper on "Arthritis," and this was followed by a very interesting discussion by Dr. Russell Cecil, Assistant Professor of Clinical Medicine, Cornell University, and by Dr. John Gray of Newark. About 100 physicians were present. A social time followed the scientific meeting.

The next meeting will be held on February 26, when Dr. Howard M. Clute, of the Lahey Clinic, Boston, will read a paper on "Recent Advances in the Treatment of Obstructive Jaundice," and discussion will be led by Dr. Frank Matthews.

Homeopathic Hospital of Essex County

Edward H. Willan, M.D., Reporter

The regular clinical staff meeting of the Homeopathic Hospital was held Thursday evening, January 28, with Dr. Willan presiding.

The cases presented included 5 unusual neoplastic lesions treated during the past month, and this summary is submitted by Drs. Edward H. Willan and Ferdinand C. Dinger, the committee on reporting:

Case 1. A man, aged 45, was admitted December 16, 1931, complaining of pain in the right lower quadrant of the abdomen, of 48 hr. duration, associated with nausea and vomiting. Right side was tender on pressure, and in the evening before he had a slight chill. The pain had been more or less constantly present for a year. Operated upon in this hospital 1 yr. previously, for a well-developed, right, indirect, inguinal hernia. When the sac of the hernia was opened a small amount of yellow, gelatinous material was found; the sac, itself, being highly vascular. Tissue examination of the sac wall, however, disclosed no evidence of malignancy. Patient made a complete recovery and resumed business. Occasionally, he was annoyed by the abdominal pain being reflected into his right hip and back. This culminated in the more acute attack described above.

Patient was sent to the hospital with a diagnosis of acute suppurative appendicitis, but with the idea also in mind that there might be some neoplastic condition. His white cell count at the

hospital was 8900 with 72% of polynuclears. The urine was normal. A right rectus incision was made and the peritoneal cavity opened. Immediately, a large quantity, 4 to 5 oz., of yellowish colloid material welled up from the right abdominal fossa. The appendix was found to have completely sloughed away, leaving a 1 cm. stub from which fecal contents exuded. The tissue of this stump was friable and resisted suture. The tip of appendix could not be found but in its place was a cyst sac 4x10 cm., leading behind the posterior parietal peritoneum which was also filled with gelatinous material. The right kidney could be palpated plainly and the lower pole of the kidney did not in any way connect with the cyst cavity. Sections of the cyst wall were taken, and the cyst was then packed with gauze, the end of which was brought out of the abdominal cavity through a cuff of rubber dam. Two coils of small bowel, adherent to the mass, were freed, and the wound closed. Postoperatively, the patient had a stormy 5 or 6 days with intestinal obstruction. His stomach was lavaged 2 or 3 times per day until, finally, he developed a fecal fistula which relieved the situation for another 4-5 days, at the end of which time the fistula healed and his bowels moved normally. He was discharged, apparently well, on his twenty-fifth postoperative day. He is now up and about, going to business but returning to the hospital regularly for x-ray therapy.

Tissue studies showed this tumor to be a columnar-cell carcinoma with colloid degeneration, in the distal half of the appendix with an extension to the retroperitoneal nodes, which had broken down into the cystic carcinomatous mass described.

Of more than 13,000 appendices examined by MacCarty, Batzdorff and Bender Laboratory only 0.46% of them showed carcinoma; 6% showed evidence of metastasis or extension to parts other than the appendix. There are 2 types of carcinoma commonly found in the appendix. The first is a small spheroidal-cell carcinoma, usually located in the tip of the appendix and often forming a mucocoele, but which is relatively benign. The second type is the columnar-cell carcinoma of which this case is an example; usually associated with colloid degeneration and tending to spread to adjacent nodes, especially in the retroperitoneal region.

The microscopic slides were shown through the projector. Dr. Fendrick, discussing this tumor, showed the columnar cells and the masses of colloid distending the aveoli, and reported that 5-year cures were frequently obtained with such patients.

Case 2. Reported by Dr. H. Straub. A male child, age 13, was admitted December 1, 1931, complaining of pain in the right lower quadrant, with vomiting. The pain was spasmodic in character and with each cramp there was vomiting. Temperature slightly elevated, and a tender mass could be palpated in the right lower quadrant. Condition was diagnosed as acute suppurative appendicitis with intestinal obstruction. Incision disclosed a large mass of neoplastic tissue in the cecum; extension to the mesenteric nodes; appendix involved in the mass and could not be identified. Diagnosis of sarcoma was made on the appearance of the cecum, and ileostomy was performed through a separate incision. Considerable bleeding occurred while exploring the mass and the wound was packed with gauze and left unsutured. The ileostomy was opened at the end

of 36 hours and functioned faithfully through the postoperative course. The packing was removed gradually until at the end of 1 week it was completely out. The child ran a moderate fever and continued weak, while the tumor spread rapidly; the mass extending over toward the midline. X-ray therapy was given despite some reluctance on the part of the parents. After approximately 3 weeks, further intestinal obstruction ensued and the patient expired. Tissue sections showed this growth to be a typical lymphosarcoma; composed of small, lymphoid cells with active mytoses. The postmortem findings corroborated the disease picture as shown at operation, but in addition revealed metastases in the liver, probably blood-borne, as there were tumor cells around the central vein of the lobule.

Dr. Straub then read a résumé of the literature concerning lymphosarcoma of the cecum, and slides were exhibited by Dr. Fendrick showing lymphosarcoma in the cecum and liver. The strange fact was pointed out that, notwithstanding all the lymphoid structure present in the body, lymphosarcoma usually chooses 1 of 3 areas—mediastinum, cervical lymph-glands, or the cecum. These tumors evolve from lymph follicles of the submucosa, and form projecting masses of tissue more often than annular growths. These polypoid masses often cause intussusception. Dr. Rankin, of the Mayo Clinic, reports 15 patients operated on, of whom 4 died, 5 had recurrences, and 6 are living; 1 now at the end of 3 and 1 at the end of 4 years; while 1 who was considered inoperable, has had a 2 year cure under x-ray treatment.

Case 3. Presented by Dr. Willan for Dr. Harvey Cooke. A female child, age 9, entered the hospital with a large tumor, of the leg, which had been present for 2 years, and showed a steady growth until the past 2 months. The child had suffered considerable pain, apparently due to pressure, and was unable to walk. The tumor extended from the upper-third of the leg down to the os calcis, and presented tremendous tension with marked edema. Laboratory reports showed a normal blood count, normal urine and negative Wassermann and Kahn tests, but the Mantoux reaction was slightly positive. There was also a general adenopathy, and 1 of the inguinal glands removed for biopsy gave us a diagnosis of active fibroblastoma in the original tumor. While the tissue was being taken for biopsy, we found that the tumor was under the soleus muscle and apparently encapsulated. With this knowledge, it was determined to resect the tumor, if possible, and a linear incision was made, running the complete length of the leg, and after drawing aside the gastrocnemius and soleus muscles, a large, moderately firm and encapsulated tumor was found. This tumor originated in the tendon of the plantaris muscle and measured 3x4x14 cm.; so, the tumor was resected in its entirety and the tendon was dissected from its attachment to the os calcis. The wound healed by first intention and the child was able to walk, using that leg on the twelfth day following operation, and she is returning to the hospital for post-operative x-ray therapy.

The radiographs on this patient, demonstrated by Dr. James W. Marquis, showed a soft tissue tumor extending throughout the lower 2/3 of the posterior aspect of the leg; the fibula and tibia were both spindling in character, due to pressure on the nutritive artery. The cytology of this tumor was discussed by Dr. John Gray,

as he exhibited the slides, and demonstrated that sections of the resected tumor showed more than those from the biopsy specimen from the periphery of the encapsulated neoplasm. Deep in the growth, there were yellowish, gold colored areas, sections from which showed numerous typical lipid or foam cells, characteristic of xanthic tumors. Foreign body giant cells, which are usually present in these tumors, were absent this time, and this was explained by the subsequent fibroblastic sarcomatous growth. Dr. Gray pointed out that these growths were probably the end-results of injury with hemorrhage in the tissue around tendon sheaths, or aponeuroses; blood pigment is always present and the function of the foreign body giant cells is absorptive. As this function ceases, and the chronic irritation produces an active cellular growth, the microscopic picture changes from that of a benign tumor to a fibroblastic sarcoma. He stated that Broders had reported 17 xanthic tumors, all of which were benign. The present tumor was larger than any of those which Broders reported, and in this tumor there was more definite evidence of sarcoma of a low-grade malignancy; though Bloodgood and Hentzler have reported malignancy in xanthic tumors. It is questionable whether a sarcoma of this grade would respond satisfactorily to radiation, because of the mature character of most of the cells.

Case 4. Presented by Dr. R. E. Humphries. Female, aged 19, entered the hospital January 12, 1932, with a diagnosis of osteosarcoma of her left leg. In October, 1929, she commenced to have pain in the leg extending down to the foot. Shortly after this, a small lump appeared above the knee, which continued to get larger, and the pain increased slightly. In December she went to another hospital where the following was found on examination: General condition fair, with slight limitation of motion in knee and considerable enlargement and thickening of the thigh extending to about 6 in. above the knee-joint. In January, 1930, a radiograph showed some degenerative changes in lower end of femur, with some radiating spurs extending into the soft tissue. Red blood cell count at that time was 3,300,000; white cell count, normal. Urine, negative. Diagnosis was—sarcoma of femur. X-ray treatment was suggested, as the mother absolutely refused an operation at that time. Beginning in January, 1930, x-ray treatment was continued twice a week for about 30 treatments. She was discharged on June 27, 1930, when the tumor growth had apparently been arrested; pain had entirely disappeared. On July 25, 1930, she fell on a street car, hurt her knee, and an x-ray picture showed fracture of femur a short distance above the condyles; brace was applied to prevent further leg deformity. She was allowed to walk; deformity of the fracture did not increase; and she continued under observation, from time to time, until October, 1931, when she began to have more pains in the knee. October 3, 1931, an x-ray picture showed some involvement of the femur above the old disease area. She was again referred for x-ray treatment, but after 2 treatments, attempting to get out of bed, she felt sharp pain in leg and was unable to use it. An x-ray picture taken then showed a fracture of the femur at the upper end of the new tumor. January 12, 1932, she was admitted to the hospital and an amputation performed.

Discussion of this case was opened by Dr. John Gray, who reviewed the osteogenesis and the

classification of bone tumors. He explained that the variety of cell types in osteogenetic tumors can only be understood through a clear knowledge of the developmental stages of bone formation. The location of such tumors was also explained by the fact that primitive bone tissue persists in certain places in the skeleton. Primary osteogenetic sarcoma originating from primitive tissue, and secondary sarcoma derived from benign osteoma, chondroma, or osteochondromyxoma, were described. He touched also upon those tumors originating subsequent to cartilage growth, including the benign foreign body giant cell tumor and bone cysts. Microscopic sections of this tumor showed that it was a typical primary chondromyxosarcoma.

Case 5. Presented by Dr. F. C. Dinger. A female, aged 75, appeared for examination in August, 1931, with a tumor in the lower inner, quadrant of left breast, measuring 3 cm. in diameter, and fixed to the skin but not to deeper tissues. On account of her age and cardiac condition, x-ray treatment was suggested in preference to surgery. After extensive x-ray treatment, the tumor melted down to size of a pea, treatment was stopped, and the condition was pronounced under control. After a lapse of 6 weeks the tumor enlarged and patient's condition seemed worse. Hospitalization for further x-ray treatment was suggested, but use of $\frac{1}{2}$ erythema dose gave apparent change in size of tumor. Systemic disturbance prevented further x-ray treatment. Patient was then digitalized and, under limited surgical anesthesia, a superficial mastectomy was done—staying wide of the tumor. Pathologic diagnosis revealed prickle cell epithelioma. The unusual feature of the case appeared to be the fact that, being of squamous cell origin there was no external evidence of the tumor on the skin surface, and its tendency was to go deep.

Discussion was opened by Dr. Fendrick, who pointed out some characteristics of prickle cell derivation, by means of microscopic slide projection. Dr. Gray stated that in such cases transillumination of the breast might be of some value in differential diagnosis.

Orange Mountain Medical Society

G. Herbert Taylor, M.D., Secretary

At the Annual Meeting of the Orange Mountain Medical Society, held February 4, the following officers were elected for the year 1932: President, Earl B. Stokes; Vice-President, George S. Reitter; Treasurer, Leroy L. Colch; Secretary, G. Herbert Taylor.

Academy of Medicine of Northern New Jersey

At its regular meeting, held February 24, the Academy of Medicine of Northern New Jersey had as its guest, Dr. Walter E. Dandy, Professor of Neurologic Surgery, at the Johns Hopkins University, whose interesting paper—"Treatment of Meningitis and Brain Abscess"—was thoroughly enjoyed by his audience.

The Twenty-first Anniversary Meeting will take place on March 17, and the addresses will be delivered by the Honorable A. Harry Moore, Governor of the State of New Jersey, whose talk will be on "Medicine in Its Relation to the State", and Charles Gordon Heyd, M.D., of New York City, President-Elect of the Medical Society of the

State of New York, whose discussion will be on "The Responsibility of the Community to Its Physicians".

Ladies will be invited as guests of the Academy, and a collation will be served after the meeting.

The Doctor's Club of Newark

Charles Frederick Baker, M.D., Secretary

The monthly meeting of the Doctor's Club was held at the Hotel Douglas, with Dr. L. W. Bagg acting as host, February 15.

The following interesting cases were reported:
Dr. J. Irving Fort: "Dislocation of the Semilunar Bone of the Wrist Treated by Open Reduction with Modified Davis Skid."

Dr. Henry Barkhorn: "Three Cases of Septic Otitis."

Dr. Zehndor: "A Case of Parenchymatous Keratitis."

Dr. Mockridge: "Streptococcus Endocarditis with Positive Blood Culture."

Dr. MacArthur: "A Case of Double Uterine Cervix."

Dr. Erier: "Miscarriage at 5 Months in a Woman Who Had a Complete Vaginal Septum."

Dr. Fort: "A Woman with 2 Uterine Cervices."

Dr. Lourey: (1) "Hematuria with Pain Radiating from the Kidney". (2) "Severe Nephritis with Subarachnoid Hemorrhage."

GLOUCESTER COUNTY

Henry B. Diverty, M.D., Reporter

The Gloucester County Medical Society held its regular meeting February 18, at the Oakwood Country Club. There was a large attendance of members and a number of guests were present.

Dr. Eldridge I. Eliason, of Philadelphia, delivered the principal address on the subject: "Surgical Aspects of Gastro-Intestinal Hemorrhage", while Dr. Reuben Sharp, of Camden, talked on the medical aspects of the same subject.

Dr. C. A. Bowersox, of Woodbury, also discussed the paper, and Dr. Ralph L. Moore, of Woodbury, presented a Case Report.

Following the meeting a supper was served for the members of the Society and its Auxiliary.

Those present were: Drs. E. E. Downs, President; Ralph K. Hollinshed, Secretary; Chester I. Ulmer, C. A. Bowersox, Oran A. Wood, Duncan Campbell, Wendell Burkett, J. Harris Underwood, Wilson Stout, Horace M. Fooder, B. A. Livengood, William Brewer, C. C. Sheets, Fuller Sherman, Paul M. Pegau, William Pedrick, Harry Nelson, Ralph Moore, M. F. Lummis, E. R. Ristine, I. W. Knight, H. L. Sinexon, Dorothy Rogers, D. B. Weems, W. E. Crain and E. S. Black.

Drs. Oram Kline and E. M. Richardson, Camden County Delegates; Thomas Sooy, Pitman, and Church and Dunn, Salem County Delegates, were guests.

HUDSON COUNTY

Harry Perlberg, M.D., Secretary

The regular meeting of the Hudson County Medical Society was held at the Carteret Club, Jersey City, on Tuesday, February 22, with the President, Dr. W. W. Brooke, presiding. The

minutes of the previous meeting were approved as printed in the Bulletin, and extracts from the Report of the Executive Committee were read and submitted for action later.

Dr. Brooke stated that the Secretary of the County Medical Society had been in communication with Dr. Morrison, of the State Society, relative to members who were unable to pay their dues, but whom it was desirable to carry on the roll. Up to the present time, final advice in this matter has not been received.

Dr. Pyle stated that some of the members disapproved of the proposed publicity relative to publishing the membership in the public press, and asked that someone make a motion to rescind the action taken at the previous meeting. After considerable discussion, Dr. Quigley moved that the Society does not accept the recommendation of the Executive Committee, but desires that the names *shall* be published in the public press. This motion was seconded by Dr. Waters, and was carried.

Dr. Alexander, speaking for Dr. Pollak, asked to have the members vote on testing children in the schools for tuberculosis, with a view to giving them proper treatment, either in their homes or in sanatoriums, and later on to establish an open-air school for children affected with this disease.

Dr. Brooke asked the members whether or not they would sanction the recommendation of the Executive Committee, to accept the suggestion of the Public Health Committee as proposed by Drs. Alexander and Pollak, the work to be done by trained physicians who would be paid for such service by the County League.

The Board of Censors reported favorably upon the following applicants and all were regularly elected into the Society: Drs. Francis F. Haggerty, Hoboken; Marie A. Sena, North Bergen; G. Irving Levine, Jersey City; Edward N. Bookrajan, North Bergen. The following new applications were received: Drs. Jessie D. Read, Jersey City; Morris Flichtenfeld, Jersey City; John J. Quinn, Jersey City; Benjamin Paul Potter, Secaucus; Robert M. Nitten, Jersey City.

The Scientific Program follows: "Diet and Exercise in Prenatal Care", by Arthur W. Bingham, of East Orange; "Treatment of Late Pregnancy Toxemias", by Edward G. Waters, of Jersey City, and "Obstetric Forceps: Its Utility and Its Dangers", by S. A. Cosgrove, of Jersey City. These papers were discussed by Drs. Carl H. Ill, of Newark; A. Weiss, of Weehawken; James Norton, of Jersey City; Jones, of Montclair; Mount, of Montclair; D'Acerno, Spath, Quigley, and Swiney, with a closing discussion by Doctors Bingham, Waters and Cosgrove. Owing to the absence of the Secretary, due to illness, these minutes are restricted.

Bayonne Hospital Clinical Conference

Maurice Shapiro, M.D., Secretary

The regular Bayonne Clinical Conference was held Monday, February 1, at the Bayonne Hospital; being called to order, by Dr. Donohoe, Chairman, at 9 p. m., when the deaths of the month were reported and discussed.

Dr. Brooke, reported for the Surgical Service.

Case 1. F. L., white male, aged 30, was admitted January 23. Had enjoyed excellent health until 2 days before admission, when he first noted a dull pain in the right lower abdominal quadrant.

He took castor oil and other cathartics, without relief. Pain grew steadily worse during the next day, and he found that he could not endure it any longer and called a physician, who immediately referred him to the Hospital for an operation. At no time was there any associated nausea, vomiting, diarrhea or urinary disturbance. He had never before had any form of digestive disturbance. Diphtheria and pneumonia when a child; no other acute or chronic illness. However,—and this is significant—he had a left inguinal hernia 10 years ago, for which he was operated upon in this hospital.

The abdomen was rather tympanitic, with generalized tenderness more pronounced in the region of McBurney's point; a tenderness which prevented deep palpation and the possibility of detecting an intraabdominal mass. A left inguinal incision scar present, but no evidence of hernia.

Urinalysis was practically negative. The white cell count was 15,400; with 79% of polynuclears and 21% lymphocytes. Temperature on admission was 102°. The pre-operative diagnosis was "appendicitis, ruptured, with possible generalized peritonitis".

A right rectus muscle splitting incision was made, and when the peritoneum was opened a small amount of thin, bloody fluid was found and quickly aspirated. Immediately beneath the incision, a large, firm, brownish-red mass presented itself, and seemed to fill the entire right abdomen. Further exploration was necessary and the incision had to be enlarged. The beef-brown mass represented the (almost entire) great omentum, seemingly fixed at 2 points; one at about the hepatic flexure of the colon, while the other seemed to descend in the shape of a narrow pedicle as far as the left inguinal region. The omental pedicles were tied off and the whole mass removed. The appendix was decidedly injected and the gross appearance would justify the diagnosis of subacute appendicitis. The appendix was, therefore, removed and the abdomen closed in the usual manner, leaving drainage in place. So far, there are no postoperative complications and the patient is apparently on the road to complete recovery.

Pathologic report described a venous thrombosis and hemorrhagic infarction of the greater omentum. The postoperative diagnosis was bipolar torsion of the gastrocolic omentum.

The literature on this subject recognizes 2 varieties of torsion: (1) Unipolar, in which the structure is fixed at one extremity, while its distal end swings freely in response to any forces acting on it; (2) bipolar, in which the structure is fixed at 2 points with the intervening portion left free to twist axially. With the omentum swinging normally free from its attachment to the stomach and colon, its dependent portion is acted on by a variety of forces within and without the peritoneal cavity. Hence, any factor, such as a cyst, tumor, inflammatory tumefaction or circumscribed fibrosis, which produces a local increase in the density of this dependent portion, may contribute toward unipolar torsion. More frequently, however, the well-known tendency of the omentum to attach some portion of its free border to another interabdominal structure, accounts for the second fixed point essential to bipolar torsion. In the present case, the lower fixed point seemed to run toward the left inguinal region. It is possible that a tongue of the free omentum had been included by the first surgeon

within the ligature used to tie off the hernial sac; or, since the patient possessed an unusually long omentum, its tip may easily have become attached to the incision wound by adhesions. Now, having the 2 fixed points of the omentum, it presented a condition ideal for bipolar torsion if the initial impulse was added, like changes in the position of the body, sudden physical strain or hyperperistalsis of the intestines.

This case also shows the danger of an accidental fixation of the free margin of the omentum by suture to an adjacent structure during closure of laparotomy wounds. As this patient had been employed as a truck driver for several years, it is also possible that constant jarring may have initiated a twisting motion.

Dr. Weiss reported for the Medical Service the following cases:

Case 1. J. S., white male, aged 40, entered September 29, complaining of coughing spells and attacks of dyspnea and cyanosis. Cough began about 3 weeks previously; a dry-cough, non-productive in character. A few days before entrance, during a coughing spell, he felt his "wind cut off" for a few moments, and he became cyanotic, weak and completely exhausted after that attack. On day of entrance he had another coughing spell, this time becoming unconscious. A physician administered adrenalin, and brought him out of the attack. The patient gave no history related to allergy, nor was there any family history of allergy. A point of interest, is the fact that several days before onset of symptoms he had received a head injury; an iron pipe weighing 35 lb. fell on him. He gave also a history of gonorrheal infection 10 years ago, but denied luetic infection.

Findings were: râles in the chest, anteriorly on the right side, below the clavicle; temperature, pulse and respiration within normal range. Urine negative. Blood: R. B. C., 4,600,000; W. B. C., 9,800; hemoglobin 90%; differential, normal; blood chemistry, normal; sputum, negative. Urethral smear, showed occasional Gram-negative intra-cellular and extra-cellular diplococci; Wassermann and Kahn tests each gave 3 plus.

The thorax showed deviation of the tracheal shadow to the right. Widening of the transverse aortic arch and enlargement of the heart being, mainly left ventricular. Lungs showed a moderate amount of hilus and root-branch thickening with lymphoidal nodulation; suggestive of a chronic bronchitis. Examination of the skull showed no definite evidence of fracture.

Fluoroscopic examination of the mediastinum did not show aneurysm, but there was a swelling in the left side of the neck and extending to the sternal region, suggesting a substantial thyroid.

On the day of entrance he had another attack such as described above. He was given adrenalin; attack lasted 5 minutes and appeared asthmatic in character. That same night he had another attack, but this time adrenalin failed to bring him out, and the attack lasted 1 hour. The following day he had 2 more attacks, each lasting 2 hours. Each attack left the patient completely exhausted.

On October 9, Dr. Van Deesten saw him in consultation, and maintained that the condition was luetic in origin. He advised anti-luetic treatment and change of patient's position. Treatment was instituted. On October 12, he began showing signs of improvement. No more attacks. Dr. Molloy visited him and could not find anything on external examination of the larynx. On the

twenty-first Dr. Markowitz did a bronchoscopic examination and was of the opinion that the trachea was compressed on the left side and pushed over to the right by a pulsating mass, which was either an aneurysm or a mass with indirect pulsations from the aorta, possibly a gumma. He advised anti-luetic treatment, in view of the positive Wassermann and Kahn tests. Attacks of acute precordial pain followed each administration of salvarsan.

Patient was discharged in good condition on November 11, but was advised to come to the Venereal Clinic for further treatment. He did, and showed signs of improvement during the course of treatment. There were no more attacks of dyspnea or cyanosis. The first course of treatment ended late in November. He was then placed on a rest period of 6 weeks. One week before entrance to the hospital, attacks of dyspnea, cyanosis and asphyxia re-appeared; grew worse, in severity, lasted longer, and came on more frequently. Supportive measures, like adrenaline and atropine, had no effect. His last attack began on the morning of January 26, 1932; face was black, with eyes widely dilated; several convulsions with twitching of the face and hands. Oxygen inhalation was administered without effect. At noon, he became unconscious; respirations were labored and he was using all his accessory muscles of respiration. Consciousness was regained that afternoon, but during the night dyspnea came on again; perspired profusely; pulse began slowing; quality was very poor; heart beat was rapid, weak and faintly audible. He expired early the next morning; thus ending his hard struggle for existence.

The final diagnosis was aneurysm of the ascending aorta.

This case was reported at the December conference, and is again reported for the purpose of verifying the diagnosis at autopsy, and also to show that while anti-luetic treatment may keep such a man comfortable, it does not effect a cure.

Dr. Cares demonstrated, at autopsy, the aneurysm at the arch of the aorta, which was posterior to and eroded into the trachea. The pressure on the trachea caused the clinical symptoms. At the base of the aneurysm, there were signs of healing, which probably were due to the anti-luetic treatment.

Case 2. A. M. G., white female, aged 60, was brought to the hospital by ambulance, in convulsions and coma. She was the last of a well-known family in this city her father having been Mayor here at one time. She inherited enough money to carry her through the rest of her life and, to make it more dramatic, she had arranged for her funeral expenses.

The history of the present illness dates back 7 years, at which time she was a patient at St. Mary's Hospital, in Hoboken, where she presented symptoms and signs of pneumonia. A roentgenologist had fluoroscoped her and stated that her heart was displaced upward and backward. She remained there 1 month and was discharged in fairly good condition. On September 5, 1930, she was a patient at the St. Francis Hospital, with influenza, the symptoms being chills, fever, headache, profuse perspiration and cough with expectoration. On October 15, 1930, she first noticed stiffness in both shoulder-joints and elbows, with pain, increased on motion. February 21, 1931, she entered the Jersey City Hospital for a general examination; her chief complaint then being pain in both shoulder-joints and elbows.

She was somewhat emaciated, not acutely ill, though appearing to have lost a good deal of weight. On the floor of her mouth, beneath the tongue and on the left side, was a soft mass, and a few enlarged submaxillary glands were found in the neck. The right chest bulged anteriorly and posteriorly, in comparison with a flatness of the left chest. A systolic thrust was felt at the left apex, fifth intercostal space anteriorly, and the eighth posteriorly. Percussion note dull in the left apex, merging with cardiac dullness; hyper-resonance in the right chest; bronchial breathing in left chest, over apex anteriorly and posteriorly. There is no mention of any deformity of the thorax. A systolic murmur was heard over the whole cardiac region and transmitted to the right and left supraclavicular spaces. Tactile fremitus was increased over the right apex. Vocal fremitus was increased over the left apex. Heart beat was regular in rate and rhythm. Tachycardia was present. Blood pressure 200/102. Temperature was normal during entire stay at the hospital.

The diagnosis at that time was: A mass involving left apex; an unresolved pneumonia; and, a bronchogenic carcinoma.

During the first 2 days of her present visit to the hospital, she had numerous convulsions; at first, controlled by chloroform, later by chloralhydrate; and she was in coma during entire stay at the hospital, which was 4 days; pulse became more and more irregular; respirations very shallow, until she finally expired, January 3, 1932. The final diagnosis had been: Right-sided hemiplegia; myocardial degeneration; auricular fibrillation; and, arteriosclerosis with hypertension.

Autopsy by Dr. Cares recorded the findings as: Brain, on section, showed a large clot in the region of the "Island of Reil" and the internal capsule; a massive clot, and the cause of death. The interesting feature, very seldom found, was the left lung, which was atrophied, fibrosed and calcified so that the whole lung was about the size of a small fist. The pathologic diagnosis as to the lung, was an old tuberculosis which had undergone fibrotic changes, and this atrophied.

Case 3. S. F., white male, aged 38, entered December 18, 1931, complaining of cough, pain in left chest, hemoptysis and headache. Referred to the hospital by a private physician with diagnosis of pneumonia. He was the father of 5 children, and, in order to make ends meet, had accepted a job at cleaning vats in one of the chemical industries. He would enter these vats when they were still hot, full of dust, and of vapors.

Onset of illness dated back 5 days, with headache, pain in chest and a generalized feeling of malaise and weakness, but despite this he continued to work; though he felt himself getting weaker and the day before admission had hemoptysis to the extent of a full cup of bright red blood. During the day of admission he expectorated a good deal of bloody sputum. Headaches continued and he described his sensation "as if he were drunk."

Physical examination revealed a well-nourished, well built, robust individual, sub-acutely ill. The face was of a dull, listless, sallow, greenish color.

On examination, the patient was well oriented, cooperative, and fairly intelligent. There was a slight serous discharge from the nose; breath foul, teeth carious and posterior pharynx injected; anterior jugular veins were distended; vessels in the neck pulsating; expansion appar-

ently equal on both sides; percussion note resonant anteriorly over both sides, with musical wheezes; posteriorly, dullness over the middle and right lobes; breath sounds diminished and fine râles were heard over the middle lobe; breath sounds over the lower lobe, almost absent; left chest, posteriorly, slightly decreased; resonance with fine râles at the base. The heart was normal in size and shape; apex beat in the fifth intercostal space; beats regular, rhythmic and forceful; slight systolic murmur heard at the apex. Small hemorrhagic areas were scattered over the abdomen which was also distended and tympanitic; a suggestion of a palpable spleen was argued and doubted. No palpably enlarged lymph-glands. Many hemorrhagic areas found over both lower extremities; several hemorrhagic areas in the eye-grounds. Urine: Albumin +2. Blood: Hemoglobin 20%; R. B. C., 1,090,000; W. B. C., 32,800; normoblast, 1; macroblasts, 2; lymphocytes, 2; metamyelocytes, 4; myelocytes, 24; myeloblasts, 70. Bleeding time, 5 minutes. Platelets, 50,000. Reticulocytes, 0.2%.

Given a transfusion of 275 c. c. blood, the patient improved, became brighter, could walk around, dyspnea decreased, and he was fairly comfortable. Blood studies at this time showed an increase of 300,000 red cells; differential count remained the same; myelocytes and myeloblasts still high. Patient was placed on sodium cacodylate with the hope of destroying the immature white blood cells, and daily counts were taken, but the immature cells increased steadily and the red cells decreased. January 3 he became dyspneic, oxygen inhalation was administered, arrangements were made for another transfusion, but the patient expired on January 4. The final diagnosis was acute myelogenous leukemia.

Autopsy showed a small spleen with nests of myeloblasts, as did the kidney. Dr. Cares said that while diagnosis in this case was *myelogenous leukemia*, it is almost impossible to differentiate between that and *lymphatic leukemia*. The one test that might be of value was the oxidase test, but that is not infallible. The burden of proof is on the bone marrow or lymph-glands and in this case they both were negative.

Case 4. P. R., white female, aged 39, was admitted January 12. About 8 weeks previously she noticed a hard, firm, painless swelling just below the angle of right jaw, which had rapidly become larger until it attained its present size. There were no other complaints and patient appeared to be enjoying perfect health. There had been a tonsillectomy 7 months prior to admission. We found a hard, firm mass about the size of a tangerine, fixed firmly to the surrounding tissues. Below this mass, and above the clavicle, there were 4 small nodules, varying in size from a pea to a hazel-nut, which were also hard, firm and attached securely to underlying tissues. On January 1 the chest was x-rayed and report returned with no evidence of parenchymatous disease of lungs, nor of suspicious shadows in the mediastinum to indicate glandular disease. While in the hospital she ran a low-grade fever, ranging from 99° to 101°, the latter figure being reached only on 2 or 3 occasions. She was discharged 2 weeks after admission, with a diagnosis made only on histologic section of one of the glands in the neck.

Dr. Cares, speaking of reticulum cell sarcoma, said that in cases of suspected primary neoplastic involvement of lymph-nodes, one is strongly inclined to borrow some diagnostic features from

clinical aspects of the case. One can readily understand the caution exercised in resting a diagnosis upon a histologic section, when the inherent specifying faculties of lymph nodes are borne in mind and the lymph-node tissue is subsequently to respond to neighboring inflammatory or neoplastic lesions, producing various stages of tissue response ranging from a simple increase of the lymph elements to such advanced hyperplasia as to render difficult the determination of a border-line between secondary response and primary neoplasia. The structures of the lymphatic cells, as well as the splenic, consist essentially of the 3 following elements: (1) Lymphocytes present within the sinuses and cords. (2) Reticulum cells which lie within the germinal centers of the lymph follicles and scattered throughout the sinus walls. Relationship in histogenesis of the reticulum cells of the germinal centers, to the mature lymphocytes, is still the bone of contention among numerous cytologists. (3) Endothelial cells of the lymphatic sinuses which are not intimately related to the endothelial line of blood vessels. Any one, or a combination of these, may, and frequently does, respond to neighboring inflammatory or neoplastic lesions.

Reticulum cell hyperplasia is frequently seen in tuberculosis, and particularly in "Hodgkin's" disease, and may so picture the field as to cast doubt upon a true granulomatous nature. Various stages of "Hodgkin's" disease, both from the standpoint of chronicity and tissue reaction, i. e., fibrous round cell infiltration and encapsulation, will produce vastly dissimilar pictures. Similarly, early so-called alymphia "Hodgkin's" may develop months later into definite lymph-sarcoma. In the case at hand, where the clinical picture favored, if anything, the diagnosis of "Hodgkin's", histologic appearance, consisting mainly of very rapidly proliferating, malignant, reticulum cells, did not tend to bear out the clinical suspicion. The absence of "Dorothy Reed" cells; the paucity of plasma cells; and only an occasional eosinophile; in the presence of almost a purulent replacement overgrowth; the presence of reticulum cells must of necessity determine the diagnosis.

One must bear in mind that the granulomatous elements, when not marked, are still present to a sufficient degree to make one keep in mind the possibility of development into a "Hodgkin's" lymphogranuloma or sarcoma. Such cases should be carefully studied and where possible, consecutive biopsies taken to better establish the pathogenesis of diseases falling into the great limbo of lymph-node malignancy, the origin and development of which are still the points of exhaustive and fiercely contested controversies.

HUNTERDON COUNTY

B. S. Fuhrmann, M.D., Reporter

The Hunterdon County Component Medical Society held its regular January meeting at Frenchtown, on January 26, with Dr. Topkins presiding. After disposing of the routine business, the society was addressed by Mr. Blanksteen on the subject of Health and Accident Insurance as available to members of the New Jersey State Medical Society, under a group contract with The Independence Indemnity Company of Philadelphia.

The society was then addressed by Dr. G. N. J. Sommer, Past-President of the New Jersey State Medical Society, on the subject: "A Survey of Surgical Emergencies of the Abdomen." Dr. Sommer, in his charming manner, outlined the emergencies that confront the physician when the symptoms stated by the patient refer attention to the abdomen, and warned us of the pitfalls that make a diagnosis difficult. He put special emphasis on the danger that arises when narcotics are administered before a diagnosis has been made, as—*clouding the symptoms misleads the surgeon to whom the patient is referred.*

Dr. H. C. Reik reported on the doings of the State Society. After which, dinner was served.

The following were present: Drs. I. T. Topkins, G. B. Tompkins, E. W. Clossen, W. E. McCorkle, B. S. Fuhrmann, F. H. Decker, H. M. Harmon, I. R. Boothby, G. N. J. Sommer, A. A. Heil, F. O. Slavin, A. L. Gramsch, H. O. Reik and Mr. W. Blanksteen.

MERCER COUNTY

A. Dunbar Hutchinson, M.D., Reporter

The Mercer County Medical Society met in the Stacy-Trent Hotel, February 10, with President Wilbur in the chair.

Dr. A. C. Morgan, Emeritus Professor of Clinical Medicine, Temple University, was the Guest of Honor, and addressed the large audience on the subject of "Treatment of Acute Cardiac Tragedies."

Dr. Morgan subdivided his topic into 3 important parts: (1) Angina; (2) coronary block; (3) acute dilatation with pulmonary edema. He discussed the etiology, symptomatology and treatment, in a very interesting and forceful manner; using a living subject in diagrammatically outlining the several portions of the body affected in these different conditions. Particular comment on Dr. Morgan's lecture centered about the fact that the entire subject was made so perfectly plain and easily understandable, and a rising vote of appreciation was extended to him.

Mr. Blanksteen, of the Independence Indemnity Insurance Company, explained the proposition now offered the Medical Society, in a few concise words.

Dr. Little described again the Post-Graduate Course as prepared by the University Extension Division of Rutgers University in association with our State Medical Society Committee, and many registrations were received during the evening.

Following a discussion on the subject of the "Baby-Keep-Well Clinics", the society went on record in favor of such clinics, with the recommendation that the President appoint a committee to confer with the proper authorities relative to the conduct of such clinics. Drs. Sommer, Scamell, Atkinson and McGuire were so appointed.

Dr. Rowan, reporting upon his attendance at the meeting, in Newark, of the State Society's Maternal Welfare Committee, referred to the recommendation of President Hagerty that every hospital, in each county, should have representatives through similar County State Committees to cooperate with the State Society Committee, President Wilbur took under advisement the making of such appointments.

Dr. Phillips moved that the New Jersey Pharmaceutical Association be invited to meet with this Society at the next meeting, this being amended by Dr. G. W. Williams that the associa-

tion appoint a committee to represent them, the amendment being accepted by Dr. Phillips, the motion was carried.

The request of Mrs. E. C. Taneyhill, Field Secretary of the State Society, for the privilege of the floor on May 11, was granted.

Dr. M. L. Poyas was elected an Associate Member, and the applications of Drs. A. William Blumberg and R. T. Buckley, were read and referred to the Membership Committee.

Dr. Hutchinson called the attention of the society to the large number of excellent articles in the January Journal, with especial emphasis on those of Drs. Marsh, Knight and White. In fact, I think there is an abundance of material for hard thinking this month. The scientific papers are always good, but, the many divergent pathways now spreading before us, through darkened forests of experimentation in medicated sociology, not only perplex and confound, but disturb and confuse an otherwise complacent, orthodox, symmetry. But we should all read and profit by the fine Journal our Editor is providing.

MIDDLESEX COUNTY

January Meeting

Samuel Berkow, M.D., Reporter

The regular meeting of the Middlesex County Medical Society was held at the Hotel Pines, Metuchen, on January 20, at 9 p. m., Dr. Robert L. McKiernan presiding, with 41 members and several visitors, including the Secretary of the State Society, Dr. J. Bennett Morrison, present.

Minutes of the previous meeting were read and approved. Communications were read by the Secretary. Dr. F. J. Koelsch, of New Brunswick, was elected to membership.

Drs. Joseph Mark and Frank C. Johnson were reelected Delegates to the State Society, Johnson reelected Nominating Delegate and Mark Alternate.

Dr. Nafey questioned the action of the Society regarding the refund of \$2 authorized by the State Society, and Dr. J. B. Morrison explained the intention of the Society in this matter.

A letter from Dr. W. G. Schauffler was read, inquiring as to the action of the Public Health and Child Welfare Committees. Dr. Johnson elaborated upon that work in the State Society.

Applications for membership were received from Drs. Nathaniel M. Japhe, George F. Hülker, Alexander Klein and Charles Calvin, of Perth Amboy; and Margaret Armstrong, of New Brunswick; all referred to the Committee on Ethics.

At the suggestion of the President, an amendment was offered, increasing the Executive Committee to 5 members.

Dr. J. V. Smith, Chairman of the County Society's Committee on Post-Graduate Courses, reported the activities of his committee and made an eloquent appeal for subscribers to the courses which are being provided by the State Society and Rutgers University.

Dr. F. C. Johnson moved to increase the Society dues from \$3 to \$5 a year. After discussion, on motion by Dr. Mark, Dr. Johnson's motion was tabled.

Mr. Blanksteen, representing the Insurance Company for the State Society's Group Accident and Health Insurance, explained the advantages of this form of protection.

Dr. J. Bennett Morrison was introduced, and

spoke on matters pertaining to the relations between the County Component and the State Society. He cleared several misconceptions that were evidenced during the meeting, such as the source of funds which the State Society is contributing to post-graduate courses to be given this year.

Dr. Swick, of Mt. Sinai Hospital, delivered the scientific address on the subject: "Intravenous Urography as a Diagnostic Aid." He exhibited lantern slides showing interesting normal and pathologic cases diagnosed by means of intravenous dyes. He stressed the fact that this method complements other urologic diagnostic methods, such as retrograde pyelography, but does not replace those methods. Dr. Swick explained the method of action of intravenous dyes, their indications and contraindications and exhibited several slides from urographic studies with a dye administered orally.

The paper was discussed by Drs. Brody, Kramer and Walker, after which collation was served.

February Meeting

Samuel D. Berkow, M.D., Reporter

A meeting of the Middlesex County Medical Society was held February 17, at the Hotel Pines, Metuchen, with Dr. Robert L. McKiernan presiding.

Dr. J. V. Smith, Chairman of the Post-Graduate Course Committee, reported that a series of lectures has been arranged. Complete series of lectures in Perth Amboy and New Brunswick may be given if registration from both parts of the county is sufficient.

Dr. J. S. Mark reported that the Public Welfare Committee had met and discussed its projected activities, but was unable to decide upon definite course of action in the absence of Dr. McGovern, county physician, who is a member of the committee.

Dr. J. S. Mark inquired as to the sum spent by the county on care of tuberculous patients who are sent to sanatoriums out of the county. Dr. Silk, President of the Middlesex County Tuberculosis League, stated that Middlesex County spends about \$170,000 on care of tuberculous patients in various institutions, partial repayment by the patients reducing this expenditure to about \$125,000 a year. This information was desired in relation to the project of building a sanatorium in the county, a matter discussed in the public press for the past several years. The Public Welfare Committee proposes to submit a definite course of action for the approval on this project and to make felt the influence of Middlesex County Medical Society in support of this decision.

Dr. London requested that the Welfare Committee inquire into the relation between state clinics and medical practice. Dr. Samuel G. Berkow pointed out that the Welfare Committee should initiate publicity measures in line with those being carried out by other medical organizations in this state and nation. Periodic health examination campaigns were taken as an example. He emphasized the desirability of furnishing reports of meetings of the society to county newspapers.

Dr. Rothschild, a member of the State Society Committee on Scientific Exhibit, informed the members of the activities of this committee. He

requested that those members who wish to exhibit at the State Convention in June should communicate with him before March 15.

The scientific program consisted of an address by Dr. Ross McPherson on "Toxemias of Pregnancy". Dr. McPherson detailed the results of conservative treatment of convulsive toxemias and compared them with results from more radical and operative procedures. Treatment with large doses of morphine, in the manner introduced at Rotunda Hospital, Dublin, and advocated by Dr. McPherson, was productive of far better results in series of cases which he described.

Following the main address, numerous questions, covering the subject and many other obstetric problems, were asked and were replied to by the speaker.

A collation was served.

Medical Section Rutgers Club

J. H. Rowland, M.D., Secretary

The regular meeting of the Medical Section of the Rutgers Club was held Friday evening, February 19, at 9 p. m., in the Hotel Klein, with Dr. F. C. Johnson presiding and 19 members present.

The speaker of the evening was Dr. Alvin S. Barach, of Englewood, Professor of Biochemistry, who presented a talk on "Therapy in Pneumonia", demonstrated by lantern slides.

Dr. Barach's talk was devoted principally to the use of oxygen and he explained its physiologic action on a normal person, at sea level and at a high altitude, and called attention to the similarity of the symptoms in persons at high altitude and patients with pneumonia. He also described the use of the oxygen tent and oxygen chambers in the treatment of pneumonia and cardiac conditions.

From Dr. Barach's talk it was apparent that oxygen therapy is of very considerable value in treatment of pneumonia and cardiac conditions, particularly, and of some value in other conditions. Oxygen therapy is still in its infancy, and much benefit will be obtained in the future in many conditions, depending upon the demand for and availability of this treatment. It is apparent that an educational campaign, not only for physicians but also for lay persons, would be of considerable help in bringing oxygen therapy into more common use.

After the meeting refreshments were served by the Entertainment Committee, Drs. Tilton, Faulkingham, Haight and Johnson.

MONMOUTH COUNTY

Harold A. Kazmann, M.D., Reporter

The January meeting of the Monmouth County Medical Society was held at the Monmouth Memorial Hospital on Wednesday evening, January 27, with Dr. Stanley Nichols presiding.

Outlining the policy for the year, Dr. Nichols suggested that all meetings be held at the Monmouth Memorial Hospital, the Fitkin Memorial Hospital, or some other medical institution, and that the programs be confined to scientific matters; the business session being shortened as much as possible. This plan is to be facilitated because of the appointment last year of an Executive Committee which meets 8 days before the

Society and issues a bulletin of its transactions, which is mailed to every member of the society before the approaching meeting.

The Maternal Welfare Committee, composed of Drs. Robert MacKenzie, Joseph Ackerman and R. B. Wilson, submitted the following report:

"Your Committee on Obstetrics has to report that investigation of the records of this county shows the maternal mortality rate to be appreciably higher than that for the State of New Jersey as a whole. Here are the figures:

	Maternal deaths Monmouth County		New Jersey	
	1925	10 per thousand	6	per thousand
	1926	7.2 "	5.4	"
	1927	10 "	6.1	"
	1928	10 "	5.6	"
	1929	6 "	6	"
	1930	9.7 "	5.8	"

Not since 1927, has it been possible to obtain from the State Department of Health detailed information concerning reported deaths. Careful study of cases for the year 1927 shows several matters of interest.

Of the remaining 14 patients, 3 (all delivered at of pregnancy; 1 dying of acute nephritis, 3 of infection accompanying abortion, 3 following operation for ectopic pregnancy.

Of the remaining 14 cases, 3 (all delivered at home) died of septicemia, 4 died following severe instrumental delivery, 1 was delivered and died in a Newark hospital but is charged to us because the state authorities allot cases according to residence.

It seems to the Committee that distinction should be made in the records between deaths occurring prior to and those after the twenty-eighth week of pregnancy. We believe that consideration of the latter group gives the only true indication of obstetric responsibility.

Statistics for the past 5 years show that in the matter of still-births, Monmouth County varies practically not at all from the whole state, averaging 40 per 1000 deliveries; slightly higher than reported statistics for New York and other states, and we would like to do better.

We wish to call attention to the ruling of the State Board of Health, that every dead-born fetus advanced beyond the fifth month, should be classified as a still-birth, but we urge a detailed report of circumstances attending each case so that study of causes and responsibility may be facilitated. Toward this end, we request of the State Board of Health a revision of the present still-birth report blank, providing space for other data pertaining to the case.

In conclusion, the Committee wishes to call the attention of members of the medical profession in this county to several factors definitely contributing to high maternal mortality:

(1) Disinterested and inadequate prenatal care.

(2) Improper or insufficient education of the physician, in appreciation of the importance of proper technic in deliveries.

(3) The desire to terminate labor rapidly by operative intervention.

(4) Improper use of hospital facilities, particularly those of low grade.

Dr. William K. Campbell, the Retiring-President, discussed the accomplishments of the society during the past year.

The paper of the evening was given by Dr.

Joseph J. Eller, of New York City, on the "Diagnosis and Treatment of the More Common Skin Affections". It was well received and discussed with great interest.

The following poem by Arthur L. Lippman has come to the attention of the reporter and seemed to be of sufficient human interest to warrant inclusion in this month's report:

The Family Physician

He's much too mellow, much too wise
In any branch to specialize.
An ever-ready, kindly blend
Of guide, philosopher, and friend,
He has no nurse to take your fee
Or card-index your pedigree.
He has not learned the stylish ills
For which the wealthy foot the bills.
He does not fall for current isms,
Fancy fads or nouveau schisms.
But when we're not entirely whole
Or something's gnawing at our soul,
He pours, to guide us in our blindness,
The healing milk of human kindness.

MORRIS COUNTY

Marcus A. Curry, M.D., Reporter

A special meeting of the Morris County Medical Society was held on the evening of Thursday, February 18, in the Recreation Hall of the Cafeteria Building, New Jersey State Hospital, at Greystone Park, through the courtesy of the Board of Managers and Superintendent Dr. Curry. President Kraus had the pleasure of presiding over an attendance of 55 members and guests.

An interesting evening was provided by exhibition of a series of Eastman Teaching Films, the subjects being: "Simple Goiter"—"Prostatic Hypertrophy"—"Acute Appendicitis".

Dr. L. E. Williams, Chairman of the Morris County Maternal Welfare Commission, also contributed to the interesting program by a report upon the work under way and contemplated; stating that for Morris County the most important part of the work is to improve prenatal care; that in this county many maternity patients receive very little care of that sort; especially is that true of women looked after by midwives, and these are the prospective mothers the Commission wishes to reach, so they may receive adequate prenatal care; that there has been a Prenatal Clinic at Morristown Memorial Hospital for a number of years, and another has recently been opened at All Souls' Hospital, in Morristown, and it is reported that a clinic is to be opened at Dover General. The clinics mentioned as functioning have in the main taken care of women who were expecting to go to that particular hospital to be delivered. The Commission wishes to expand the scope, if possible, so those hospitals will treat not only women to be delivered in the hospital but also those to be delivered at home, whether by midwife or physician. Some women feel that they cannot afford to pay for prenatal visits to the physician, so the Commission is going to try to take care of them at the clinics with consent of the physician engaged, and if any signs of toxemia appear, the woman will be referred at once to that doctor. For the Commission to carry out its plans it is necessary to have coöperation of the medical men and the Visiting Nurses of this county, not only with reference to prenatal care,

but coöperation to the extent of any suggestions that may improve the practice of obstetrics in this county.

After the meeting, by invitation of Superintendent Curry, refreshments were enjoyed in the cafeteria.

PASSAIC COUNTY

W. W. Hall, M.D., Reporter

A combined meeting of the Passaic County Medical Society and the Passaic Practitioners Club was held in the Ritz Ballroom, Passaic, on February 11, at 8:30 p. m.

The minutes of the January meeting were approved as read.

The attention of the society was called by Dr. C. R. Hagen, of Paterson, to action taken by the Board of Health. The following is an excerpt from Dr. Hagen's letter: "The action of the Board of Health, in abolishing the office of the Protective Officer without the recommendation of the Health Officer, is a step in the wrong direction. This position, established when I was Health Officer, over 15 years ago, has been necessary to the city's well-being, and is more necessary now, with so many people out of work and a general let-down in our moral and hygienic standards. Venereal disease, like tuberculosis, will show a sharp upward trend during hard times, and the abolishing of this office, as a measure of economy, without the sanction of the Health Officer, is, I believe, a step backward."

The society is opposed to the abolition of this officer, at this time.

The society approved the action of the Executive Committee and the Pathologists of the local hospitals, in formulating an agreement with the Funeral Director's Association, for making more clear the desires and obligations of each in securing permission for autopsies, and their performance in such a manner as to facilitate the work of the embalmer.

The Board of Censors' report was read to the society, after which the following named candidates were elected: Drs. William Missonellie, of Hawthorne; Albert T. Lemay, Paterson; L. H. Joyce, Passaic; A. M. Fiering, Mountain View; M. E. McPherson, Hawthorne; M. M. Chapnick, Paterson; A. M. Perneti, Paterson; C. E. Van Mason, Pompton Lakes; and Elizabeth Nesbitt, Little Falls.

The Scientific Program was presented by Dr. Frank Lahey, Director of the Lahey Clinic, Boston, an outstanding authority on surgical diseases of the stomach and thyroid gland. His subject was the "Coöperative Medical and Surgical Treatment of Gastric and Duodenal Ulcer".

His paper created much interest and was discussed by Drs. T. Dingman, S. Ginsberg, O. Gordon, D. Mendelsohn, L. G. Shapiro, and William Spickers.

There were present 118 members, and a collation followed adjournment.

SALEM COUNTY

William H. James, M.D., Reporter

The Salem County Medical Society met at the Memorial Hospital, Salem, February 10. The attendance was very good and the meeting was enjoyed by all those present.

The regular business was opened by President L. G. Hummel, after which the essayist, Dr. T. M. Cain, of Cooper Hospital, Camden, read a very interesting paper on "Acute Abdomen". Among other things, the doctor said that low blood pressure, pain, and tenderness were common symptoms. Shock was not a symptom of perforation. Tubal pregnancy, duodenal ulcer, and various other conditions may be mistaken for appendicitis with acute abdominal symptoms. Early operation is very important.

Dr. R. M. A. Davis reported an "Unusual Automobile Accident" where a passenger was fatally injured, but the car was not damaged and 3 other passengers were not at all hurt; and the person killed showed no external injuries excepting a cut over one eye.

Dr. L. H. Hummel reported an "Interesting Case of Gun-Shot Wound": 2 boys were riding horseback; the gun accidentally discharged, killing one boy.

The visiting doctors were Merwin Hummel, of Merchantville; E. L. Small, of Medford; T. M. Cain, of Camden; and I. W. Knight, of Pitman.

It was decided to have the meetings hereafter at 9 o'clock in the evening instead of 2 o'clock in the afternoon.

At the close of the meeting, the society enjoyed a very fine chicken dinner at the White Palace Restaurant.

SOMERSET COUNTY

J. L. Young, M.D., Reporter

The regular meeting of the Somerset County Medical Society was held at the Nurses Home of the Somerset Hospital, Somerville, Thursday evening, February 11, with Dr. Meigh, President, in the chair.

Minutes of the preceding meeting were read by the Secretary, and approved as read.

Dr. Renner made an announcement regarding the Post-Graduate Course which is to begin March 11. The first clinic and lecture will be given at the Village, Skillman, by Dr. Leslie Davis.

The evening was given over to Dr. A. C. Morgan, Professor of Medicine, Temple University, Philadelphia, who addressed the society on "Acute Cardiac Tragedies".

The Society had as guest Dr. John F. Hagerty, President of the State Medical Society, and Dr. Frederic J. Quigley, Second Vice-President of the State Medical Society.

Refreshments were served after adjournment.

Obituaries

BUCK, Abijah Orange. Chief Surgeon of the Singer Sewing Machine Company for 18 years, and a practicing physician and surgeon in Elizabeth for more than 29 years, died early in the morning of February 15, at his home, 120 Wilder street. Death was due to a heart attack, and occurred at 12:30 o'clock. He had been confined to his bed for about a week.

Dr. Buck was known to his friends as a man of singular courage, and as late as the last night he talked cheerfully with Mrs. Buck and relatives, although he must have been aware that his death

was imminent. He was an aviation enthusiast and flew frequently with his son, Robert Nietzel Buck, 18-year-old pilot.

Dr. Buck was born in Johnson, Vermont, and was 62 years old. He was a graduate of Hahnenman Medical School and of the University of Pennsylvania and practiced medicine for several years in Texas before he located in Elizabeth.

As a Major in the Medical Officers' Reserve Corps during the World War he became famous as the medical officer of an army training camp at Lincoln, Nebraska, which had the lowest death rate of any camp in the United States during the epidemic of so-called "Spanish influenza".

Dr. Buck was a hard worker. During the past month or so he had performed 60 operations for charity, in addition to those in connection with his regular practice.

He was Surgeon-in-Chief of the Alexian Brothers' Hospital and Surgeon on the Major Staff of the St. Elizabeth Hospital, the Beth Israel Hospital, Newark; the Essex Homes, Newark, and of the Presbyterian Hospital, Newark. He was a member of many organizations, including the American Medical Association and the Union County Medical Association. His offices were at 19 Pingry place, Elizabeth.

Resolutions upon the death of Dr. A. O. Buck, prepared by a special committee from the Union County Medical Society, February 16, 1932:

"Resolved, that the Union County Medical Society records, with the utmost sorrow and regret, the sudden death of our esteemed fellow member, Dr. Abijah Orange Buck, of Elizabeth, on Monday, February 15, 1932.

As a member of our profession, Doctor Buck was a tireless worker, a member who served his country in war and in peace; a member who gave, unsparingly and unselfishly, many hours of service for his fellow citizens, and a service which continued even after the impairment of his own health; so, let it be further

"Resolved, that this Society, as a mark of esteem, desires that these resolutions be spread upon the minutes of this Society, and that copies be presented to the family and to the press.

(Signed) William H. McCallion.
D. R. McElhinney.
M. Robinson.

LOW, Frederick C., of High Bridge, Hunterdon County, at the age of 62, died at his residence on Sunday, January 31, 1932, from an excessively large dose of morphia, injected by himself with suicidal intent, it is believed. He had been worried for some time, it is said, concerning financial losses, and, probably, in a moment of mental aberration effected a tragedy which resulted in the deaths of his wife, daughter and self, and from which his son, a medical student, narrowly escaped.

Frederick C. Low was born at Kellersville, Pennsylvania, March 22, 1869. He attended school in that vicinity, and afterward the Kutztown Normal School, from which he graduated in 1889; and in the year 1894 graduated from the Medical School of the University of Pennsylvania. He located at High Bridge, in 1896, and had practiced there ever since. In 1900 he married Miss Blanche Bryant, from whom he was later divorced, no children surviving this marriage. Later, he married Miss Alice Mathews, and they had 2 children Frederick and Mary.

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THE TONSIL PROBLEM*

CHESTER BROWN, M.D.,

Kearny, N. J.

It is not the object of this paper to present any new discovery or information, but to place before you some of the various phases of the problem. The word *tonsil* is used in its general sense. "Upper respiratory infection" would be a more accurate title as tonsillitis *per se* does not exist. It is approached as a problem because any disease entity which furnishes 75% of our work for 9 months of the year, and about which there are so many and varied opinions, is material for discussion. Such infection manifests itself in 2 types, local and systemic, and these may be entirely distinct, or form any one of many combinations.

The first thing to study in any disease is its etiology. Many patients with bad tonsils give a history of having had diphtheria, scarlet fever, measles, whooping cough or chicken-pox. Chicken-pox is not as benign a disease as the text books would lead us to believe. This is particularly true of the first 2 or 3 years of life. There seems to be no 6 months of immunity as in measles and diphtheria. The same lack of immunity is true of whooping cough. Repeated colds may leave infection in the tonsils, adenoids, and sinuses. There is, however, another group, of patients who never had any of these affections, and in almost all of this class there is definite evidence of rickets.

Rickets is not a bacterial disease, but it seems to predispose infants to catarrhal infections. Alfred F. Hess, in his recent book on rickets, makes special mention of the susceptibility of the rachitic infant to respiratory infections. Carious teeth increase the bacterial count of the mouth a hundred-fold. The constant passage of materials from the mouth back through the pharynx must carry some bacteria and deposit them on the lymphatic ring; and furthermore, lymphatic drainage from the gums is directly back to the tonsils.

What influence has abnormal anatomy? It is accepted as a fact, that unusual pressure on tissue will irritate, inflame and ultimately produce ulceration. May I now ask each one of you to close his or her mouth and mentally note the position of the tongue, and I will read to you the position of the tongue as given in Gray's Anatomy: "The tongue is situated in the floor of the mouth, in the interval between the 2 lateral portions of the body of the mandible"; and, as given by Matthew H. Cryer, M.D., D.D.S., in a paper read before the 1921 meeting of The American Society of Orthodontists: "In normal people with normal arches the tongue fills the whole mouth, and extends back into the oropharynx almost to the post-pharyngeal wall." I think you will agree that the latter description is the more accurate. To quote further from Dr. Cryer's paper: "Figure 23 is from a sagittal section of a freshly frozen head, which gives a true idea of the lateral portion of the nasal chamber, the hard and soft palates, pharynx, mouth, tongue and epiglottis. The mouth is nearly filled by the tongue, leaving but little space under the arch of the palate. The tongue also extends

* (Read at the 165th Annual Meeting of the Medical Society of New Jersey, Pediatric Section, Asbury Park, June 5, 1931.)

well back into the oropharynx, coming into contact with the soft palate, which is carried back against the post-pharyngeal wall. The epiglottis also rests lightly against the back of the pharynx. There is no congestion in the nasal chamber; everything is clear, allowing good ventilation and drainage. If the dental arch of this skull had been narrow, the tongue would have been forced backward against the soft palate and the post-pharyngeal wall, thus cutting off both nasal and oral respirations, and both of these air passages would have been relieved by opening the mouth and carrying the tongue downward and forward with the mandible. This is what occurs with many cases of so-called "mouth breathing"; which is not always caused by adenoids, or obstruction of the true nasal passages, but often by narrow dental arches. The same effect is produced by a retracted mandible.

The usual conception of tonsillitis is the picture of ulcerative or follicular forms; which are rare before the fifth, and not common until after the tenth, year. During these early years of life, no infant is too young to have tonsillitis, which may show an acute onset, with temperature of 101° to 104° , and there may or may not be vomiting and considerable prostration. The physical examination is negative except for the fever and a deep-red pharynx, most marked over the tonsils and their pillars. The tonsils are usually swollen, but, when judging the latter, it must not be forgotten that the tonsils are relatively large in early life. These acute symptoms last from 2 to 5 days and not infrequently recur 4 or 5 days later, going through the same course. But, it is not a self-limiting disease and may continue for weeks or months with only slight remissions. Patients having a continuous fever for more than a week have some complication; most frequently a cervical adenitis—which indicates that the first line of defense, the lymphatic ring of the pharynx, has broken down and the second line has taken up the fight. Next in frequency, is an otitis media, and, under 3 years of age, this is seldom unilateral. The external auditory canal is cartilaginous in the young, and moving the external ear disturbs this canal, causes pressure on the inflamed tympanum and middle ear, and is very painful. The electric otoscope

has made it possible for anybody to make a comprehensive examination of the infant's ear. In the early stages of otitis the drum and adjacent canal wall are deeply injected, the cone of light may be gone, and the tympanum is of a dull gray color. A condition occasionally observed is an edematous, bleb, appearance; which I have never seen described in the literature. At first glance, it can easily be mistaken for the normal cone of light. The bulging drum and sagging posterosuperior wall are later signs.

Acute articular rheumatism, as seen in the adult, is probably never found before the third year and is rare before the seventh. The marked, acute swelling of the joints is, even at the latter age, seldom seen, but very young children do have a rheumatic syndrome, with painful joints and muscles, and a carditis, with a rise of temperature; the heart is rapid and there is a poor muscle sound. Other heart symptoms appear later. A symptom which is not mentioned in the literature, but which I have seen several times, is an urticarial rash; not only in those who give a history of allergy.

Many patients have none of the above mentioned symptoms, or have long intervals between them, during which period they are neither sick nor well. They have that characteristic, drooping posture, with its poor nutrition. There is a dull, livid pallor. The face has a tired look. The whole attitude is one of mental and physical fatigue. The school work is poor; or, they may be mentally precocious but too tired for physical activity and want to stay in doors with a book. Others have a nervous excitability and cannot stay still. They run themselves to death. Irritability is a prominent symptom. A normal, well child has a good disposition. The so-called "growing pains" should never be passed over lightly, for they indicate that there is some focus of infection and they are only too often the beginning of what later becomes a true rheumatism. There is seldom a good appetite, the tongue is coated and there are frequent complaints of abdominal pain. There may be only occasional complaints of slight pain, or, intense distress.

Chronic tonsillitis is particularly prone to show acidosis, but that may also complicate acute attacks of tonsillitis. The digestive symp-

toms are often so marked that they completely mask the cause, and you are all familiar with that series of autopsies on infants whose causes of death were given as gastro-intestinal but showed an unsuspected mastoiditis.

Pyelitis is another pathologic finding that may complicate upper respiratory infections. Chorea is sufficient for a paper in itself, so I will only mention it as one of the manifestations of a focal infection in the tonsil.

Common colds, laryngitis, bronchitis and asthma have been cured by tonsillectomy, but it is dangerous to assure the parents that such a cure will take place. My experience in preventing common colds by tonsillectomy has not been as good as some have reported. I do find that the patient combats the cold better after removal of the tonsils.

The physical examination shows the poorly nourished, drooping posture mentioned above. There is a moderate secondary anemia as suggested by the pallor. Cervical adenitis is almost invariably found in the chronic cases, particularly those patients who never, or seldom, have an acute attack. The glands directly in front of the sternocleidomastoid muscle, just below the angle of the jaw, drain the tonsil; those posterior to the same muscle drain the adenoid area, the retropharyngeal area, and the ear. These facts help to a correct localization of the trouble. The glandular enlargement does not have to be so great that it can be seen. If the glands are palpable, there is or has been a pathologic condition in the areas they drain.

The pulmonic physical findings are those of the complications mentioned above. Not infrequently these little sufferers will have a sub-resonant percussion note over the entire chest, with a very faint vesicular sound, harsh breathing note in the interscapular region and a positive D'Espine's sign. An x-ray picture shows moderate bronchial markings and enlargement of the mediastinal glands; which suggests tuberculosis, but a Mantoux test will help differentiate.

Cardiac pathology is pronounced in those who have had rheumatism, but it is part of our job to prevent carditis. Any slight murmur,

impure sound, prolonged first sound, inequality, irregularity—call it what you wish—should not be passed over lightly as an anemic murmur. They should be noted as danger signals and as a call for thorough search, particularly of the upper respiratory tract, for a cause. We acknowledge that we seldom cure well-developed cardiac disease, therefore we must recognize it in its incipient or potential stage.

With a clinical course such as has been outlined, we are in a position to forecast the gross pathology of the pharynx. Those patients with definite acute attacks, have prominent, protruding, clean tonsils with well marked crypts. Please note that I did not say enlarged or hypertrophied. I believe these adjectives cannot be intelligently used until the tonsils are removed. There is an exception; i. e., where the tonsils are not symmetric; this, I believe, is always pathologic. Submerged tonsils may appear very large, when removed. There may be concretions in the prominent crypts but seldom can we express pus from a young child's tonsils by pressure, as in adults. This may be done when, under an anesthetic, they can be grasped by a forcep. The chronic "tonsils" are too frequently over-looked as they are on a plane with or below the level of the pillars. They and the pillars are of a bluish cast and covered with a sticky mucus.

The local examination for adenoids without an anesthetic is very unsatisfactory and is warranted only in chosen cases. The clinical course is usually sufficient. There may be disease of the tonsil and not the adenoid; but the reverse is seldom seen. The fad of a decade or more ago, of taking out the adenoids and leaving the tonsils, proved this.

The treatment of upper respiratory infections presents problems, as does the diagnosis. Drugs, general hygiene, vaccines; all have their advocates. X-ray therapy in small children has not been to me satisfactory. Other forms of electrotherapy I have not had any experience with. The first step is to make a positive diagnosis. This is distinctly a problem of the general practitioner or the pediatrician. The nose and throat surgeon is just as incompetent to decide whether tonsils should come out, as we general practitioners are to

take them out. Get the child in as good condition as possible. Here our hygiene, drugs and vaccines are of help. No child should be operated on with a mouth full of carious teeth. Cleaning up the mouth, will at times relieve the burden of the lymphatic ring so that surgery is not needed. Orthodontal care will cure those who have mechanical irritation and not disease; will prevent recurrences after tonsil operation because of the abnormal anatomy described above, and will cure those mouth breathers who are not relieved by surgery. The effort should be made to have them out not less than 1 month after an acute attack. The late spring or early summer is the season of election. This is not so important that a needy patient should be permitted to suffer from November to June. Have the nose and throat surgeon who is accustomed to operating on small patients do the mechanical work. He has perfected his technic so that his percentage of success will be above that of those doing it only occasionally.

Tonsillectomy is *not a minor* operation; therefore, order not less than 3 days of rest in bed postoperatively and do not allow such patients to run loose or get into dusty places until complete surgical recovery; about 2 weeks. Explain that *tonsillectomy* is but 1 step in the treatment and that they are to report to the *doctor* (not the surgeon), 1 month after the operation. See them at intervals during a full cycle of the seasons and direct them to report at once with any recurrence of symptoms. In short, before the operation make plain to the parents how important it is to keep them under observation for a year. During this period of observation, medical treatment, which failed while the child was carrying the load of a focal infection, may now be effective.

One more suggestion which is in accord with the "back to your own doctor campaign" that our society is now waging, educate parents to bring their infants to you for inspection at regular intervals and immunize them to such diseases as you can; thus doing much to prevent further respiratory infections.

DISCUSSION

Dr. Henry C. Barkhorn (Newark): It is a very real privilege to open a discussion in this Section on Pediatrics, both as a tribute to Dr. Brown for his exceptional paper, and as an evidence of re-

spect and friendship for Dr. Wherry, your Chairman.

The paper was truly exceptional. It was gratifying to see Dr. Brown demonstrate the anatomy of the tongue, the influence of the position of the tongue on breathing and on infection. The tonsil problem, of course, is both simple and complex. It is tremendously simple, as concerns the ordinary streptococcic infections, the ordinary ear affections, its relation to deafness, sinusitis and diphtheria. None of us, I am sure, has any doubt that the removal of hypertrophied or diseased tonsils, as portals of entry for the acute streptococcic infections, and for scarlet fever, otitis media and sinusitis, is proper. When, however, we get into the more complex problem of the *chronic tonsil* we are not so sure of our ground, and still, if we do not believe in their removal, our whole theory of focal infection must fall to the ground. You can get statistics to prove anything; that removal of tonsils never does any good, or that taking them out always does good; and you can also get any intermediate group of statistics. As an insurance against some of these troubles, removal of tonsils is very efficacious. Rheumatism, chorea or cardiac disease can often be traced to the tonsils. The heart and joints have become sensitized to streptococci and then the least focus anywhere, the teeth, intestinal tract, or gall-bladder, will cause trouble. Sore throat is the symptom most frequently found at the onset, but once sensitized we are no longer so sure, and that is what makes the problem complex. Over a period of 5 years the incidence of repeated acute infections is very small. After 10 years it is much harder to prove that patients do not have so many infections as they did before tonsillectomy, but in the meantime you have taken them over the period of stress or over the early school age, and have thereby accomplished a great deal.

I was glad that Dr. Brown emphasized the after-care and the accessories to the tonsil problem—the fact that diet is important; that there is probably a vitamin deficiency which needs constant supervision; that while tonsils in children and teeth in adults are important factors, they are not *the whole problem*. There are many other phases that still need supervision and, although Dr. Brown thinks that we specialists should, perhaps, remove all the tonsils, I do not quite agree with him. I know many pediatricists and many general surgeons who do rather good tonsil operations, but *I would say* that we have our part to perform, and all the responsibility should not be left upon the pediatricists.

Dr. William F. Keim (Newark): I was very much interested in Dr. Brown's entire paper. He has emphasized many points of great value. May I direct your attention to one in particular; mouth breathing. Too often, without a careful examination, parents are told positively that if the tonsils and adenoids are removed the breathing will be all right. More care should be given to an examination of the entire nasal condition; the mouth and especially the development of the palatine arch of the upper jaw; whether there is room for normal eruption of teeth. A very high, narrow, palatine arch may cause severe obstruction of the breathing, by narrowing the intranasal space and by forcing the tongue into the pharynx. The tongue lies, as Dr. Brown has said, not between the teeth of the lower jaw, but between the teeth and within the palatine arch of the upper jaw, when the mouth is closed. If the arch is abnor-

mally narrow, the tongue is pushed back into the pharynx. In these cases, removal of the tonsils and adenoids will help breathing, but will not completely correct the condition of mouth-breathing; some other work must be done on the upper jaw to widen and enlarge the palatine arch.

There is another class of cases: the tonsils and adenoids are very large and the palatine arch normal. These patients are told that removal of the tonsils and adenoids will cure them. But, later, it is found that mouth-breathing persists. A more careful examination reveals a granular condition of the pharynx with rigidity of the pharyngeal muscles. This, practically always, in my opinion, is an indication of sinus trouble. Removal of the tonsils and adenoids for such patients is indicated, but one must give a guarded prognosis. These patients should return for examination and treatment of the sinus condition if it is found necessary.

The condition of a child's ears has been spoken of as something that must be investigated in every ill and under-nourished child. There is no doubt in my mind that many cases of latent middle ear disease are overlooked when the general effect of the ear condition upon the health of the child is really very marked.

Again, removal of the tonsils and adenoids may help the ear condition, but, generally, the ear itself must be treated, as, many times, it is the real focus of infection which is injuring the growth and health of the child.

Dr. F. C. Johnson (New Brunswick): I would like to ask Dr. Brown and others, if it is not possible out of some of the statements of this morning to have our orthodontists made more careful in their work, and in the selection of patients for orthodontal care? I have been impressed with the amount of money that goes out of the family purse for minor orthodontal defects. The problem of when orthodontal treatment should be instituted has not been settled. There is a good deal of discussion as to when these jaws should be attacked, unless the deformity is very marked. Personally, I think some outstanding results have been achieved but a great many minor deformities have been worked on to the advantage, so far as I can make out, of only the orthodontists.

Dr. Chester R. Brown (Kearny, Closing): One of the discussants spoke of the time when a tonsillectomy should be done. I think this operation is more often done too late than too early. Making a decision—as to when to operate?—requires as much careful work and investigation of the patient's general condition as for any other clinical problem.

Regarding orthodontal care, I quite agree with Dr. Johnson, that it seems to have been exploited. I do not know why orthodontal work is so high priced; whether the equipment is so expensive that it makes a high charge necessary, or not. It does not seem as though it should, nevertheless, the prices are high. I agree with you also that there have been instances where, apparently, the orthodontist needed the money more than the patient needed the treatment, but that is a criticism that the orthodontists may also make about us once in a while. In selecting a nose and throat surgeon one should find out that he is a reliable and honest, as well as a capable, man, and I think the same thing must be done in selecting an orthodontist.

SYMPTOMATOLOGY AND TREATMENT OF THYMUS GLAND CONDITIONS IN CHILDREN*

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Two years ago there was presented to this Section of the State Society a very good paper, on the "Thymus Gland", by Dr. Elmer G. Wherry. Since that time I have become interested in this condition, but, before speaking further about it, let us look back to our anatomies and refresh our memories as to the description of this gland. Gray describes the thymus as a temporary organ which attains its full size at the end of the second year, when it ceases to grow and remains practically stationary until puberty, and then rapidly degenerates. It does not entirely disappear, however, for the shrunken mass, even in later life, maintains a likeness to the original form and, according to Waldeyer, retains within its substance small portions of thymus tissue. If examined when the growth is most active, it will be found to consist of 2 lateral lobes, placed in close contact along the middle line, situated partly in the superior mediastinum, partly in the neck, and extending from the level of the fourth costal cartilage upward as high as the lower border of the thyroid gland. It is covered by the sternum and the origins of the sternohyoid and sternothyroid muscles. Below, it rests upon the pericardium—being separated from the arch of the aorta and the great vessels by a layer of fascia. In the neck, it lies on the front and sides of the trachea, behind the sternohyoid and sternothyroid muscles. The 2 lobes generally differ in size. They are occasionally united so as to form a single mass, and are sometimes separated by an intermediate lobe. The thymus is of a pinkish-gray color, and is soft and lobulated on its surface. It is normally about 2 in. long, 1½ in. in breadth, and about 3-4 lines in thickness. At birth, it weighs about ½ oz.

* (Read at the 165th Annual Meeting of the Medical Society of New Jersey, Pediatric Section, Asbury Park, June 5, 1931.)

Its blood supply comes from the superior and inferior thyroid and internal mammary arteries. Its innervation is received from small branches of the vagus and sympathetic and the branches are exceedingly minute.

As to its classification, some writers call it a ductless gland; others place it without ques-

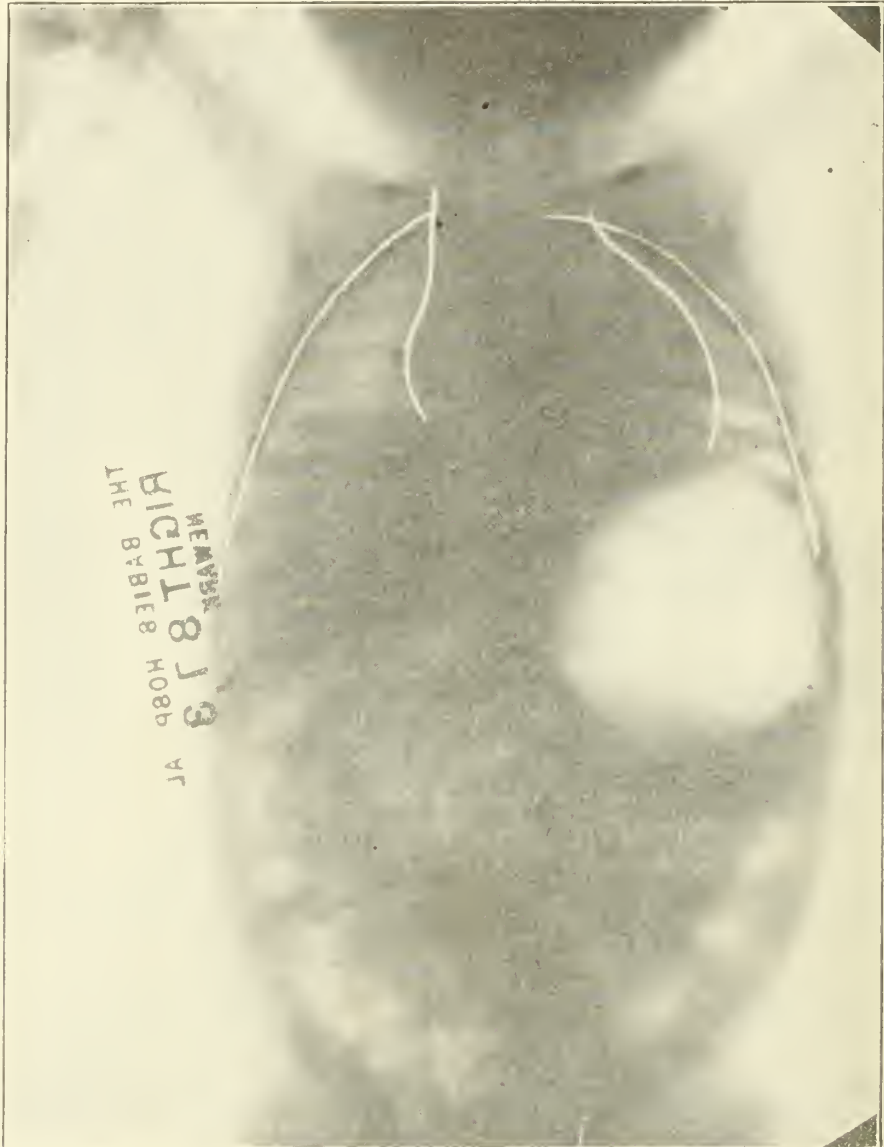
tion among the lymphoid organs. The best course seems—to class the thymus with the lymphoid organs, as our knowledge of its development favors this view.

As to its function, we have as yet no definite knowledge. Enlargement of the thymus gland may be due to varied causes. In a small num-

ber of cases it is due to congestion and edema, resulting from acute infections, general circulatory disturbances or, more rarely, trauma. It may be secondary also to infection, intoxication or disturbances in metabolism. In the majority of cases, however, it is due to hyperplasia, and for this hyperplasia it is very prob-

able that there are also various etiologic factors.

An hypertrophy which shows itself in the dimensions of thickness is of more importance than one which is in width.



Case of Elizabeth C

tion among the lymphoid organs. The best course seems—to class the thymus with the lymphoid organs, as our knowledge of its development favors this view.

aperture of the thorax is a critical space; for in that small space, which at birth measures approximately 2.5 cm. or less from sternum to vertebral column, are contained these important structures—trachea-esophagus, great vessels and nerves—and the thymus gland. In this space, the thymus lies directly against the anterior surface of the trachea.

It is an established fact that disease or injury of the vagus nerve may induce serious symptoms. Surgical anatomy tells us that bruising of this nerve or its accidental ligation or crushing with clamp or forceps, is particularly dangerous. Michelous once accidentally ligated a vagus; the patient became comatose and ceased to breathe; removing the ligature, he began again to breathe. If both were divided, death would ensue. Irritation of the phrenic nerve causes hiccup or persistent cough. Bilateral injury causes paralysis of the diaphragm.

We can, therefore, picture the effect of any appreciable enlargement of the thymus gland upon any or all of these very important structures, which control heart and respiratory action. The essential symptoms of thymic enlargement in infants and children are mainly respiratory disturbances resulting from diminution of space in this superior strait. This may manifest itself in all possible grades: a mild stridor; a thymic asthma; or a severe dyspnea with fatal termination.

The mildest form of enlargement is usually congenital or develops soon after birth. The stridor is both inspiratory and expiratory but is more pronounced during inspiration. The condition may be stationary or progressive; or, it may manifest itself suddenly in its most marked form. In the latter case the attack may be precipitated by a prolonged fit of screaming or crying, particularly when the child's head is thrown backward. The stridor, or more severe attacks, may also come on during one of the acute infections; especially bronchitis, pneumonia, diphtheria or whooping cough. Here, during the course of the disease, acute congestion of the thymus lies as the foundation of the attack. Thymic stridor is not accompanied by any modification of the voice. There is never any hoarseness in the uncomplicated cases. The stridor persists during sleep and is

not affected or improved by a horizontal position. Its intensity is increased when the child is excited or crying. When severe, there is an inspiratory retraction of the thorax; but not in the mild cases.

Now, when this condition is progressive, it shows a marked tendency to exacerbations of an asthmatic character. This was first described by Kopp and, therefore, was called Kopp's asthma. The first attack of this type may be fatal or there may be several attacks. The child throws its head backward with marked inspiratory stridor, the face becomes anxious and cyanotic, and a picture of impending suffocation is presented. Heart sounds become weak, pulse cannot be felt, and then the attack may subside or death may take place in 2 or 3 minutes.

The physical signs presented by these children vary. The general appearance of some children is that of apparent health when not in an attack. The majority have, however, a pale, pasty or muddy complexion. Eczema is sometimes a persistent symptom. Evidence of mild rachitis is also seen in many cases. Examination of the throat usually reveals enlarged tonsils and adenoids. During the attack there may be marked cyanosis and pronounced retraction of the interspaces and scrobiculus. The upper part of the sternum may be prominent, or the enlarged thymus present as a distinct tumor in the suprasternal fossa. This, if made out, is most clear during expiration or when the head is thrown back. Palpation does not present much except to verify the tumor by touch.

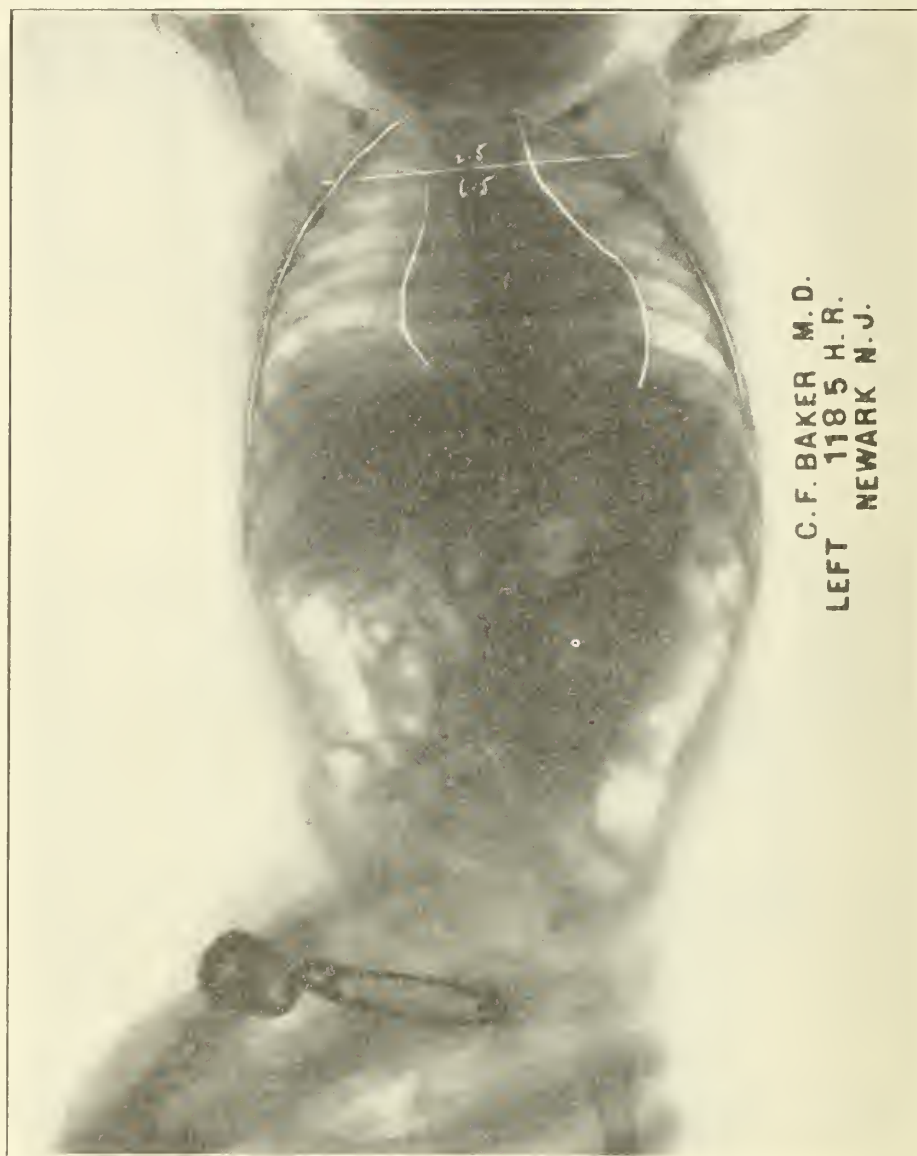
By percussion, we can sometimes map out the enlarged area of thymic dulness, which is triangular in shape, with unequal sides. An area of dulness extending more than 1 cm. beyond the sternal lines may be taken as suspicious of enlarged thymus. It also appears to be continuous with that of the heart below. By auscultation we have the occurrence of an audible respiratory sound perceptible at a distance from the body; its greatest intensity being usually heard at the end of inspiration; loudest over the upper part of the sternum.

Through the kindness of Dr. Charles F. Baker, our roentgenologist, I have been able to get some helpful advice from the radio-

graphic angle, because radiography gives us the most satisfactory aid in diagnosis; also the most certain, but even this is not infallible, for at times, the x-rays fail to show a shadow of an enlarged gland. I recall a case in which the first picture taken was entirely negative, but the child presented such typical symptoms that

33% at birth and 25% at the age of 2 years. While these measurements have been made, they are not generally accepted and should not be used indiscriminately.

Reading of the picture should be left to one with great experience in this specialty, for, many times, an experienced eye picks up sha-



Case of Elizabeth C—After 6 x-ray treatments

another was ordered and this later picture showed up a definite enlargement of the gland.

A previous writer has demonstrated the advantages of comparative measurements, of the supracardiac shadows and transverse diameter of the chest, on a line through the sternocostal articulation of the first rib. Normally, they are

dows which might be missed by just a casual examination.

We must bear in mind that there are certain other conditions in infants and children which have some symptoms in common with thymic enlargement. One that gives us much trouble at times is that of congenital bad heart. Dem-

onstration of the murmur helps us differentiate. When this is not audible and cannot be demonstrated satisfactorily we turn to the radiograph, and this usually decides for or against thymus. Cerebral hemorrhage is another condition which gives us difficulty at times, but here the history and type of convulsions, paralysis, strabismus and tense fontanelle, with spinal tap, help to differentiate. Tetany, especially where there is laryngospasm or respiratory spasm, but, again, the history, the usual posture presented in this condition, and blood examination may help. Tracheal stenosis due to mediastinal abscess, tumor, aneurysm, or foreign body will give similar symptoms. I may say that in the last mentioned condition, if the foreign body be not opaque, the x-rays will sometimes fail us. Laryngoscopic and bronchoscopic examinations, if available, help us in times of difficulty with some of the above mentioned conditions.

I wish now to cite a few cases, and I feel there is no better case to speak of than the very interesting one the writer gave 2 years ago.

This was a male child, well-developed, full-term baby, and, as the physician had been the obstetrician also, he was familiar with the case from start to finish. The child was breast-fed and apparently normal in every way; yet the doctor was being constantly sent for, often at night, each time to be told by the frantic parents that the child had awakened them by a strange whistling breathing and they had found it cyanotic, plainly gasping for breath, and each time the doctor found the same thing—a perfectly normal baby, with good color, normal heart action, respiration and temperature. Had he the mother alone to deal with he should have considered her statements of the child's condition as very much exaggerated, and as it was, he assured the parents that their nervousness was being communicated to the baby. His arguments, however, fell flat when the baby obligingly had an attack one day when he was present. The child was lying on the bed, sleeping quietly, when, with no warning, it had a sudden attack of dyspnea with stridor, and, apparently, spasm of the glottis. The baby was lying flat on his back with head extended. In addition, it was extremely cyanotic.

Before the doctor could do anything, the mother had picked up the child, thrown it over her shoulder, and run into another room, shouting at the top of her voice. The doctor followed, took the child away from her and to his surprise found that instead of being rigid and in a convulsion, the child was limp, covered with sweat, and its respirations and general appearance fast returning to normal. The doctor made a diagnosis of enlarged thymus from the symptoms and thought that he was able to make out dulness in the suprasternal notch. The diagnosis was confirmed by 2 other prominent physicians next day.

This occurred at a time before anything was known of x-ray treatments in this condition and all that could be done was to tell the mother of prophylaxis—never to let the baby lie on its back, not even for a minute. One day as the mother was dressing the baby, she was interrupted, turned her head over her shoulder for a minute or so, and when she looked again her baby was dead. He had been lying on his back with head extended beyond his mother's knee, so that his neck was fully extended. In this case, the sudden death might rightly be ascribed to mechanical pressure on the trachea.

About 2 years ago I was called to see a young child, and as the parents put it—"the child always seemed to have a cold and gets choked up; especially when it cries or takes its feedings; and sometimes it even gets a little blue". Upon examining the child, it looked normal for its age of 6 weeks. There was some mucus in its nose and throat and a few adventitious sounds here and there in its chest, but nothing definite. It had no fever and I felt that the baby had a nasopharyngitis. So, I prescribed accordingly and gave the mother instructions. A few days later the father called me on the 'phone and told me the baby still had the cold and he saw no improvement. Upon seeing the child this time, it began to cry, suddenly became blue, and presented an anxious look which made me see it was gasping for air. In a few minutes, it was perfectly well again. I advised the parents to have a radiograph taken, which was done, and it gave us the diagnosis; verification of an enlarged thymus gland.

We have now at the Babies' Hospital, Coit

Memorial, a very interesting patient. This child, Elizabeth C., aged 2 months, was admitted to the hospital March 5, 1931. It was born of white parents, full term, normal delivery. Condition after labor satisfactory. Her birth weight was 6 lb. The admission history was: Slight cold 2 weeks ago; nursed well every 3 hours until yesterday when it had a convulsion; has had 12 since then. Physical examination showed an acutely ill child with a fretful expression, and the muscles were spastic. There was no bulging of the fontanelles. There was a twitching of the lids, and the neck was held fairly rigid. No glands were palpable. The chest was negative and heart sounds normal. The temperature and pulse were 101° and 150, respectively. Abdomen was distended; liver and spleen not palpable. There were repeated spastic twitchings of the face and upper extremities. On account of the parental history of a positive Wassermann, a provisional diagnosis of cerebral lues, with complicating convulsions, was made. The blood showed hemoglobin of 70%; spinal fluid was clear and colorless, pressure slight, and cell count 12 per cu. mm.; 85% mononuclears; 15% polynuclears; blood Wassermann negative; spinal fluid negative; urine showed no abnormality; blood calcium 8 mgm. per 100 c.c.

Even with the negative Wassermann, it was decided to give antiluetic treatment. The child seemed to fare very well for a time, but then, suddenly, on March 28, became very cyanotic, practically pulseless, and stopped breathing. Our Resident Physician happened to be in the ward, and administered artificial respiration—the anal sphincter was dilated and the child came out of it very nicely. A radiograph was ordered and an hypertrophied thymus gland was found. X-ray treatment was given immediately. The child did fairly well again, until March 31, when it had 4 cyanotic attacks. The second treatment was given, and from that time on, the child made general improvement, the cyanotic attacks ceased, and, except for a little rise in temperature once in a while, and a little gastric upset, has progressed favorably.

Up to date the child has received in all 6 treatments. The words of our roentgenologist, in his report just 6 weeks after the first treat-

ment, are as follows: "In my opinion, there has been a marked regression of the supracardiac shadows, which now measure 40% of the inner diameter of the chest. The patient is, of course, markedly improved clinically but there was a question as to whether or not further radiation is indicated. There is no great density in the supracardiac region; in fact, the appearance is quite normal. I am not sure that further radiation is indicated but it will do no harm to give 2 more treatments. No appointment has been made, as it was thought best for the clinician to decide in this matter."

Another case, Dominia S., was brought to the hospital clinic when 1 month old. The mother said: "The baby is sick, has a queer noise in her throat, and always wants to sleep." This was a full-term baby, normal delivery; breast-fed; weight then was only 6½ lb.; skin was flabby, and had a yellowish hue. A provisional diagnosis of thymus enlargement and spasmophilia was made. The child was x-rayed and the report of an enlarged thymus was returned. Several treatments were given, the child improved and remained well. At the end of 3 years the mother again brought the child to the clinic because it had recently been failing; had frequent colds and a little fever. After making a physical examination, a radiograph was ordered and the following report was received: "Thymus not enlarged, tuberculosis both upper lobes." The lantern slides will show this very plainly.

Felix S., aged 5 months; a full-term baby; normal delivery; and breast-fed up till now. His general health has been fairly good. Mother brought child to the clinic because of difficulty in breathing for past 10 days, and, convulsion-like attacks. An examination was negative except for a mucous discharge from the nose and an injected pharynx. A provisional diagnosis of pharyngolaryngitis was made and in the routine examination a radiograph was ordered, and the report returned was—thymic enlargement.

Dominick D. V., a 3 months' old, white child, was brought to the clinic because he "cries a great deal and makes a peculiar sound when he breathes". Weight, only 8½ lb., and he presented a picture of rickets. When cry-

ing he had a sort of crowing inspiration. His physical examination bore out the picture presented and the summary of defects charted was rickets, feeding mismanagement, and probably enlargement of the thymus. The first 2 were prescribed for, and a radiograph was ordered to verify the gland condition suspected. The following report was returned: "Marked enlargement of the supracardiac shadows, with complete obliteration of the aortic shadows of the same side, this enlargement amounting to 60% of the transverse diameter of the chest. There is, therefore, a persistent hypertrophy of the thymus gland. This child has had several treatments for the enlargement at the City Hospital and, 3 months after the first, the second picture shows diminution in size of the shadow.

Daniel M. P., a colored infant, 1 month old, was brought to the clinic because he had a cold since he was 3 days old. Coughs and has labored breathing. Physical examination showed a well developed child weighing 10 lb. 14 oz., with a nasal discharge and a congested mouth and pharynx. There was harsh breathing over the sternum. Examination was otherwise negative, except that he also had an umbilical hernia. A blood Wassermann was ordered, as was a radiograph of the chest, for possible thymus enlargement. The Wassermann was negative but the x-ray reading was: "The film indicates the presence of marked enlargement of the thymus gland. The shadows are very dense and extend well up over the apices of the lungs. The thymus gland measures 3 cm., which, compared with the inner diameter of the chest at this point of 5.7 cm., indicates a percentage of 50.

The child received several radiation treatments. The general condition soon showed marked improvement, but 8 months later another picture was taken and the report was that "the supracardiac shadows are still dense; the patient is still in need of further radiation".

Virginia P., a white child, 2 months of age, was brought to clinic because "she doesn't take enough to eat and has a peculiar cough". The child showed signs of malnutrition and this was amended by correcting its feedings. The cough was prescribed for, and a Wassermann was

ordered. This came back negative. Two weeks later the child still had its cough and was breathing heavily. Physical examination disclosed a few fine, dry râles over anterior chest; otherwise negative. Radiograph of the chest showed: "Marked enlargement of the thymus gland. The supracardiac shadows measure 3.6 cm. and the internal diameter of the chest at the sternocostal articulation of the first rib 5.2 cm.; the former being approximately 70% of the latter."

The child received 3 x-ray treatments and 8 months later the report was: "Examination of the thymus indicates that the supracardiac shadows still measure 49% of the inner diameter of the chest at the level of the articulation of the first rib and the sternum. It is my impression that further treatments are necessary."

The treatment in our experience, most beneficial, is use of x-rays but it must be administered by an expert in this special branch of medicine, for correct timing of the dosage is very important, to get the most favorable results. There is also the treatment of this condition by radium pack, and some men claim excellent results. Most of our patients received treatments every 9 to 14 days, although sometimes this had to be changed.

The following schedule is used by our roentgenologist at the Babies' Hospital. In a very severe case, where the child is very young up to a few months, with acute and frequently repeated attacks, there is given, $\frac{1}{8}$ erythema dose, filtered through 4 mm. aluminum, once a week or semiweekly for 3 or 4 treatments. The average patient, with occasional spells, receives $\frac{1}{5}$ or $\frac{1}{6}$ erythema dose, filtered as above, biweekly. Subsequent doses gradually increase to $\frac{1}{4}$ erythema dose, but if nausea is produced following any increase in dosage, a return is made to a smaller dose as given without reaction.

Four applications, previously were given at 2 weeks intervals and reexamined 6 weeks following last treatment, but so many required further treatment, that we are now giving a series of 6 treatments, to be followed by a check-up examination 6 weeks to 2 months later.

In addition to x-ray treatment, the judicious

use of cod-liver oil or viosterol and orange juice, with a carefully regulated diet and general hygienic care is prescribed for all of these children, and they usually soon show marked improvement.

This is a very interesting subject and although many men think the pediatrician often overdoes the thymus gland diagnosis, it still remains a fact that it does occur. Probably more often than we think. We must not, however, call every unexplainable case of sudden death, nor every undiagnosable case of convulsions or cyanosis as "thymic". It is well that patients with convulsions, where the cause cannot be ascertained—where the child frequently holds its breath and becomes cyanotic—or where a child gives peculiar inspiratory stridor, which persists and cannot be ruled out as being due to something definite—it would be well to have at least 1 x-ray picture made to aid in diagnosis.

DISCUSSION

Dr. Charles F. Baker (Newark): I am very glad to have heard this paper because I think it is very timely, and in my opinion a paper such as this should be produced on an average of once a year to keep the general practitioner, as well as the pediatrician, awake to the possibilities of this condition; because very sinister results occur if we fail to recognize it. I have noticed that sometimes these cases occur in several members of the same family. One woman, having lost a child, recognized the possibility of enlarged thymus, clinically, in her second child, a diagnosis which was confirmed by x-rays. A brother and sister of another patient were also accidentally discovered to be suffering from enlarged thymus, when radiographed for fractures about the clavicle and shoulder. In one of these, there was a tremendous enlargement of the gland. We have had several cases in the past year where the mother recognized the stridor and complained to the family doctor that there was something wrong with the baby, only to be told that it was perfectly well; the physician, evidently, not considering the thymus gland as a possible cause of symptoms.

The amount of treatment to be given depends largely on the age of the child, generally 1/8 to 1/3 erythema dose every 2 weeks for 6 treatments. I have found it well to cut the dosage in half and give it twice a week when symptoms are most acute, and to give 1/8 erythema dose every 2 weeks when the symptoms are slight. When we increase the dose too rapidly, nausea may develop or, at least, the child may refuse feedings. If these symptoms are noted, we diminish the dose at the next treatment; increasing it again later. We get our erythema dose at 15 in. in 16 minutes, and start the youngest patients, 3 to 6 weeks old, at 2 minutes. They will generally receive an increased dose of 30 seconds at following treatments up to 3 minutes, without nausea or other reaction.

I had a list made of the number of patients I have treated in the last 10 years. In 1920, we had

only 1 case; in 1921, 3, a fourth having recurred. In 1922, there was 1 case; 1925—1; 1926—8; 1927—13; 1928—25; 1929—24; 1930—40; and, up-to-date this year, we have had 12. In these cases, practically every one showed improvement if not perfect cure. One baby, however, had a 40% enlargement, received the usual treatment, and after an interval of 4 months the shadow was not diminished. That patient died after receiving the second treatment of the second series. The prognosis was poor from the start and there were indications of a polyglandular dystrophy. One other child was moribund when treatment was given, and died later in the day. One died in a taxi-cab while being taken to the office; never having received a treatment.

We cannot expect to cure every patient by this method, but the results of radiation certainly are most gratifying, and practically no deaths occur after the first treatment has been given.

Dr. N. A. Antonius (Newark): The thymus has already been of deep interest to me in the Baby's Hospital. I have been on the lookout for this type of case and it is surprising how often they will be found if they are looked for. These patients wander from doctor to doctor with various symptoms and this condition, although not so very uncommon, is very often overlooked.

I wish to emphasize the important symptom of convulsions in children with enlarged thymus, the physiology of which I cannot explain. In reference to the child, Elizabeth C., mentioned by Dr. Hosp, I had the opportunity to follow her course. She had repeated convulsions and twitching of the facial muscles and extremities, which to me indicated some cerebral irritation. There was no obstruction to breathing and, with a positive history of lues, we treated her, with some improvement, and it was not until she showed symptoms of respiratory embarrassment that an x-ray picture was taken and the diagnosis of an enlarged thymus made.

I also want to emphasize the importance of negative x-ray findings. I will cite a case which brings out this point clearly. A child was sent into the hospital with the diagnosis of bronchial pneumonia. When the House Physician saw the child it had marked cyanosis, difficult breathing and marked retraction of the intercostal spaces, and he thought this might be due to a foreign body in the trachea. An x-ray picture was taken, which was negative. In spite of that finding, the child was referred to Dr. Orton for a bronchoscopic examination. Upon seeing the child he decided that it was too sick for examination. The child died in a few hours and the autopsy finding revealed a markedly enlarged thymus which pressed upon the trachea and large vessels, causing a drowning of the entire lung.

I believe with the doctor that every case with convulsions, chronic stridor, chronic hoarseness and attacks of wheezing respirations should be x-rayed for an enlarged thymus, but we must not lose sight of the fact that there are other conditions which produce the same symptoms and, therefore, if there is any doubt, a laryngoscopic examination should always be done.

It has been the custom to blame the thymus too often as the cause of sudden death in children. Our experience shows that this is not such a common cause of sudden death, and lately this has been brought out clearly by several writers.

As to treatment, all that I can say is that the x-ray treatments have been very satisfactory. Sev-

eral patients under my direct supervision have been cured of all these symptoms by the type of treatment outlined in the paper.

Dr. E. Reissman (Newark): I am sorry I was not able to be here yesterday when the discussion of the thymus conditions came up but I want to acquaint you with an observation that I have made over a period of years in examining the thymus in children. All crying babies are potentially thymus cases. In other words, when children come to us for an examination of the thymus they always cry when we put them on the x-ray table, and I have learned to examine these children under those conditions; that is when they are crying as well as when they are quiet. It takes a little longer time but eventually we are able to do it very well. During the paroxysm of crying, *especially when in fear*, the thymus appears considerably enlarged and when the child is quiescent the thymus is not much or not at all above normal size. This does not exactly mean that the child may not have an enlarged thymus but you cannot use the roentgenologic enlargement of the thymus as a criterion for a diseased condition just because of the seeming distension of the gland.

I only recently made this observation. The child was supposed to have a tonsillectomy and the doctor who suspected a possible thymic enlargement sent the patient in for examination. Naturally, this child cried considerably and I took 4 or 5 exposures. In 4 of them the thymus was almost as large as the heart shadow and in the fifth the shadow of the thymic region was almost normal. Now, this is only 1 case and I cite it because it is a very recent one, but this observation has been made many times. Of course, this does not exactly mean that the thymus is not a factor in the production of these paroxysms from which the children suffer. The enlargement of the thymus may exist without the symptoms being present and yet in some cases the symptoms will be present and the thymus not enlarged. I have taken lateral views in order to see whether there is any antero-posterior enlargement of the thymus such as we get in toxic goiters. There, you may have a thyrotoxicosis without any enlargement of the thyroid gland that you can see or feel, and yet there may be some remote pressure upon the vagus or retropharyngeal nerve. It would be of great importance if the clinician were to determine whether the children have the thymus paroxysms *only when they cry* and when they *exert themselves* by reaching for something or bending down or crawling. It would be of benefit to determine when these paroxysms come on, because, I feel, that the visual enlargement alone is not the determining factor in making a diagnosis of thymus disease.

Dr. Frank W. Pinneo (Newark): The subject bristles with many points of importance, but I will only mention one, on the cause of convulsions. A study of anesthesia has proved some very important, and not often recognized, things in connection with the anatomy of this upper transverse section of the neck, the cyanosis in thymic enlargement being due to obstruction. One notable part there is the innominate vein. As to the cause, think first, in convulsions, of muscular rigidity; of course, they can be of such type as to suggest central nervous origin. This case that Dr. Hosp showed was an excellent example of convulsions associated with cyanosis which improved markedly with radiologic treatment and which cyanosis could have been easily induced by hyperextension of

the neck, the child, lying upon the mother's lap, having died instantly. In anesthesia, we have noticed that the proper position of the neck is straight, not hyperextended nor flexed. Therefore, how can the cause of convulsions be better explained than by a lack of oxygen, or, rather, too great an amount of carbon dioxide in the blood? Even if such cases suggest looking for central nervous symptoms, do not forget that mere mechanical obstruction in the neck and the surplus of carbon dioxide in the blood may explain the symptoms. Similar reasoning for convulsions in pertussis might be applied; i.e., cerebral congestion with anoxemia.

FATAL POISONING WITH OIL OF WINTERGREEN*

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Oil of wintergreen is sometimes used, both internally and externally, for rheumatic fever. It is also a common household liniment used with massage for aches and pains of various kinds. It is the purpose of this paper to remind you that in massive doses methyl salicylate may be a deadly poison. Wintergreen is a candy flavor popular among children. If a bottle of oil of wintergreen is left carelessly on the table, a child may be tempted by the odor to take a drink. If a child takes as much as 3 swallows, he will probably be dead within 24 hours, unless adequate precautions are taken immediately.

Let me illustrate with a case in point, which I observed at the Hospital of the University of Pennsylvania.

Baby E. K., male, 19 months of age, was admitted to the pediatric service Nov. 19, 1926. He had never before been acutely ill. At 1.15 p. m. on the afternoon of admission, the child had swallowed some oil of wintergreen which the father had been using for massage. The bottle had been thrown away, so that it was impossible to determine the exact amount, but the mother was fairly certain that the child had taken only between 1 and 2 teaspoonsful, and that he had spit out some of this. The mother had given him salt water and castoria, immediately. For 20 minutes he

* (Read at the 165th Annual Meeting of the Medical Society of New Jersey, Pediatric Section, at Asbury Park, June 5, 1931.)

played normally. At about 1.30 he vomited, and during the afternoon vomited 7 times, the vomitus smelling of oil of wintergreen on each occasion. Three hours later, about 4.30 p. m., the child became rather drowsy, and this drowsiness slowly increased, so that by 6 p. m. it was noticed that the child was breathing deeply. This shortness of breath rapidly became more intense, and at 9 p. m., 8 hours after ingestion, the child was brought to the hospital.

The patient was very well nourished; very drowsy; entirely conscious; and resisted the examination fretfully. The most noticeable feature was the severe dyspnea, calling into play the accessory muscles of respiration. Respirations were deep, as in air-hunger, with no apparent respiratory obstruction. There was rather marked pallor, and occasionally slight cyanosis. The cheeks were not flushed, and the lips were pale. The breath smelled suspiciously of wintergreen. There was no cough or vomiting; no rigidity of the neck; Kernig's sign was negative, as was the rest of the examination.

The patient's stomach was lavaged with 1% soda bicarbonate solution, and 5 grams of soda bicarbonate were left in the stomach. Following administration of the soda, the respirations became somewhat easier. Soda bicarbonate, 1½ oz. of a 2½% solution per rectum was ordered, to be given every third hour. He perspired freely at intervals. At 10.30 p. m., 9 hours after ingestion, he was definitely stuporous, and at that time had several clonic spasms of the right arm and right leg. By midnight, he was in coma. At 3 a. m. there was a generalized convulsion, and this was repeated at about hourly intervals thereafter. He became moderately cyanotic. Oxygen was started intranasally, which relieved the cyanosis and dyspnea somewhat. Lumbar puncture was done. This also gave transient relief. About 6 a. m. the respirations became even more labored, with occasional sighing and gasping for breath. He remained comatose, and the respirations slowly became weaker. Respirations ceased at 8.40 a. m., approximately 19½ hours after ingestion of the oil of wintergreen.

Lumbar puncture gave an initial pressure

of 1.5 mm. Hg; the fluid was clear; there were 8 cells per cubic millimeter. The urine was negative for acetone and diacetic acid. Blood CO₂ was 33.2 vol. %. Absorption bands on the postmortem blood were negative for methemoglobin.

Postmortem performed by Dr. Morton McCutcheon. The gross examination was negative except for petechial hemorrhages in the epicardium and pleura and a small hemorrhage of the pia on the inferior surface of the cerebellum, near the pontine cerebellar angle. Microscopic examination showed an acute congestion of all the organs, and in the kidney a degeneration with cloudy swelling and necrosis of the tubules. Sections of the medulla and pons showed no hemorrhages within the brain substance.

From the cases of poisoning recorded in literature, it has been possible to calculate quite closely the expected fatal dose of oil of wintergreen. Wetzel and Nourse have estimated it to be about 0.5 c. c. per kilo of body weight, which in a small child would amount to about 6 to 8 c. c. This is approximately the amount which proved fatal in this case. There are other unknown factors in the mortality besides the dosage, however. One child who was said to have taken 1 oz. of the oil recovered, and on the other hand several died from as little as 10 c. c.

The postmortem findings following a fatal dose of oil of wintergreen have been sufficiently constant to make a fairly characteristic picture. The petechial hemorrhages in the serous membranes, the general congestion of the organs, and the degeneration of the renal tubules have been almost uniformly present, and subdural hemorrhages have been present in 3 of the 6 autopsies recorded. The picture closely resembles the description of the postmortem findings following fatal poisoning with salicylates in experimental animals reported by Quincke and by Hanzlik and Karsner. The latter writers suggest that the acute tubular nephritis may be the cause of the albuminuria which is often seen in patients under full doses of salicylates. Pincus and Handley report an increased globulin fraction in the blood serum in a case of fatal poisoning which at autopsy showed this tubular nephritis.

The pathologic physiology which causes the widespread congestion and hemorrhage is apparently a result of a direct toxic injury to the smaller blood vessels. The dyspnea which has invariably been present is thought to be due to a direct action on the medulla, which may, however, be secondary to the vascular damage. The action on the respiratory center is first a stimulation and later a depression. In addition, there is a certain amount of acidosis present. Johnson has shown that there is a definite acidosis with lowered alkali reserve with full therapeutic doses of salicylates. He was unable to determine the exact mechanism of the acidosis, but surmised that it was due either to the impaired renal efficiency or else to the presence of the salicyl radicle in the blood. However, this acidosis is the only hopeful guide to treatment which we have. Olmsted and Aldrich feel that it is the most important part of the syndrome. They even feel that it is the acidosis which is responsible for the lethal action of the drug. They had 2 children with poisoning whose recovery they attributed to the energetic administration of bicarbonate of soda. In fact, 5 of the 8 recoveries from oil of wintergreen poisoning reported in the literature were treated with soda. On the other hand, 3 of the 14 fatal cases also received soda, so that the alkali is not entirely specific in its effect.

The symptoms of methyl salicylate poisoning have been quite uniform. There may or may not be vomiting, depending on the amount of the drug consumed. There is then a latent period, when the patient appears quite well. Within a few hours, however, there is the onset of increasing drowsiness, slow, labored respiration, and excessive perspiration. This is followed by gradual recovery, or else goes on to coma, moderate cyanosis, convulsions, and death. Several reports give convulsions as almost the initial symptom, with relatively little dyspnea. Although 1 child lived 36 hours after taking the drug, the usual interval before death in the fatal cases has been about 18 hours. In those who survived, recovery has been slow, with gradual improvement over a period of days or even weeks.

There is only 1 possible treatment for methyl salicylate poisoning; namely, bicarbonate of

soda given in large doses. When we remember the pathologic picture, we are certain that if the patient is not seen until late in the course of the illness, prognosis is extremely grave and treatment very uncertain. If he survives the first 24 hours, the outlook is favorable. If seen early, before the onset of serious symptoms, strenuous treatment is indicated. Gastric lavage is essential, and vigorous catharsis should be instituted. Soda bicarbonate should be administered, repeatedly, by mouth, per rectum, or intravenously if necessary. The only reliable treatment is prophylaxis. The possibility of accidental poisoning with oil of wintergreen must be kept in mind. Whenever methyl salicylate is prescribed, it should be dispensed in a bottle marked poison, and the parents should be warned that it must be kept carefully out of the reach of children.

DISCUSSION

Dr. Kenneth Blanchard (East Orange): I have enjoyed Dr. Lathrop's paper very much and I feel that it has drawn to the attention of all of us a serious danger which might easily be overlooked; i.e., the possibility of poisoning from a more or less common household remedy.

According to Hanzlik, in his monograph on the "Action and Uses of Salicylates", the symptoms of methyl salicylate poisoning are similar to those of poisoning from sodium salicylate; differing only in degree and, unfortunately, full therapeutic efficiency and toxicity go hand-in-hand for all the members of the salicylate and cinchophen group; absence of toxicity means absence of therapeutic efficiency.

Hanzlik also finds that the toxicity of methyl salicylate is due largely to absorption of the unchanged ester, and the reason for considerable absorption of the unchanged ester is that hydrolysis, with liberation of salicylic acid, takes place very slowly in the intestinal tract. He and his associates go on to prove that methyl salicylate requires a much longer time for completion of excretion than does sodium salicylate; even small doses indicate a tendency to retention, and this tendency to longer retention in the body is no doubt 1 factor among many in the greater toxicity of methyl salicylate. Large toxic doses depress and finally paralyze the circulation in the same manner as coal tar derivatives in general. Hanzlik reports that recoveries among adults have occurred after 30 c.c. oil of wintergreen has been swallowed, and yet tells of fatalities in 3 adults who had taken 30 to 55 c.c.

As there is a delay in absorption of the unchanged ester, early lavage and administration of soda, orally and by rectum, and early administration of a saline cathartic is imperative; along with cardiac stimulation in the more toxic cases.

Kiess, in 1921, reported the deaths of 2 children, 5 and 7 years of age, who were treated for hypertrichosis and scabies, after their bodies were covered with an ointment containing 6% salicylic acid.

It has been found that the esters of salicylic acid are absorbed more rapidly than the acid it-

self, or its salts, and that the odor of wintergreen can be detected in the urine 30 minutes after application of the ester to the skin—and this was found to be most marked if the vehicle used was lard or lanolin, and less so with vaseline.

Dr. Lathrop has pointed out a danger that has heretofore been overlooked by many, and probably was unknown to many more physicians, and I feel that our Society should send this case report to the State Society of Pharmacologists, and urge them to require Oil of Wintergreen to be *sold only under a poison label*; such action may help prevent further loss of life from this cause.

Dr. F. C. Johnson (New Brunswick): I would like to make a motion that this case report of Dr. Lathrop's be sent to the State Department of Pharmacology, stating that we feel a great many people have overlooked the dangers of oil of wintergreen, and urging them to require that oil of wintergreen be sold only under a poison label.

This motion was seconded and unanimously carried.

TREATMENT OF HEREDOSYPHILIS*

F. J. McCAULEY, M.D.,
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Heredosyphilis does not differ from lues in the adult, the infection is caused by the same organism, and the results of this infection are similar. While sharply dividing heredosyphilis patients into groups, one showing early manifestations and another showing no lesions until after puberty, seems useful clinically, it has, in reality, tended to cause confusion by leading the student to ascribe various nonspecific malformations to the effects of syphilis and giving the impression that treatment for members of the groups differs. The condition is either early or late syphilis, in a younger individual, with some minor clinical variations but pathologically analagous, and the same general principles in the treatment and management of syphilis will hold true for all types. Also, in the treatment of special visceral involvement it should be remembered that treating the patient, as a whole, for syphilis is most important and will generally take care of an active lesion in the long bones, spleen and other viscera.

Pregnancies in an untreated syphilitic mother result, as a rule, for several years in abortions, but finally, because of her systemic de-

fense mechanism, the disease becomes so attenuated that a live baby may be born with syphilis; latent syphilis, of several months' duration. During the past few years this situation in the white population of the large cities is becoming a negligible problem, because most of these mothers have had some treatment and, depending on the amount of treatment received by the mother, her general condition, the time the fetus is infected, and the reaction of the fetus to the infection, we have the variations in clinical appearance of the offspring at birth; in other words, we have an infant with early syphilis. Syphilis of the *recurrent stage*, or latent syphilis with no apparent clinical manifestations, late gummatous-phase lesions, or late degenerative lues, the pathology being the pathology of syphilis. In fact, the majority of luetic babies we see now hardly resemble the old descriptions of heredosyphilis and it is not unusual that lues is discovered only after a baby has been admitted to the hospital for some intercurrent disease. Heredosyphilis, in this paper, is spoken of, as suggested by Stokes, to include the type of infection of the child which takes place via the placenta and the maternal and fetal blood streams.

In the treatment of any disease our first thought is prevention: and in heredosyphilis this would be prevention and treatment of the parents, and treatment of the mother in anticipation of pregnancy. A blood Wassermann test in the earliest stage of pregnancy has become a routine measure at all well conducted clinics. An infected pregnant woman should be treated as early as possible and continuously throughout the term of pregnancy, small dosage being used because of the extra load to which the excretory organs are subjected.

A pregnant woman known to have had syphilis, but clinically and serologically negative even for years, should also receive a modified form of treatment continuously through her term of child bearing, because we can rarely say this particular woman is cured of her syphilis and it is possible that if such a woman is constantly under treatment while with child the offspring will not be infected.

The following question so often arises: Here is an apparently healthy baby, clinically and

* (Read at the 165th Annual Meeting of the Medical Society of New Jersey, Section on Pediatrics, Asbury Park, June 4, 1931.)

serologically negative, of a mother known to have had syphilis—shall one treat such a patient? The answer should be *yes* or *no*; because the baby either definitely has latent syphilis or it is not infected. The idea of giving 1 or 2 courses of treatment to a baby during its first 2 years, depending mostly on the Wassermann test remaining negative, should not be considered. If the infant has syphilis a little treatment will do much harm, disguise symptoms, insure a future tardive case, and do infinitely more harm than treating a non-syphilitic baby unnecessarily. Therefore, in considering this question of giving treatment, or not: if a pregnant woman had an infection 5 years prior to conception; had received early and well prescribed treatment; had been under proper treatment and observation since; and had then received treatment all during term; the offspring might be considered a healthy baby, not infected with syphilis, and no treatment need be given. Under the following conditions, treatment should be given and the full régime, of course, maintained over a period of years. Taking for granted that mother and baby are negative clinically and serologically: (1) The baby of a mother who has had a fairly recent syphilis regardless of the amount of her treatment; the baby should be treated as an undoubted syphilitic. (2) If there be any doubt about the efficacy of former treatment of the mother, it would be well to feel that the baby has syphilis and treat it accordingly. (3) If a syphilitic infection be discovered in the mother any time after conception takes place the child should be treated as syphilitic, regardless of treatment given thereafter during the pregnant period, as the fetus has undoubtedly been infected and we cannot say that syphilis is cured in a few months. It is possible such a plan will tend to eliminate the occasional surprise we experience when youngsters, at the ages of second dentition and puberty, appear with tardive lesions as the first intimation that they suffer from syphilis.

An ideal treatment would insure a clinical cure with as little physical and mental stress as possible and leave the viscera intact, especially the organs of elimination. I believe we can aim at such an objective by less intensive treatment than is generally advised, but con-

tinuing without interruption over a longer period of time; a minimum of 5 years. This would be selecting the best features of the pre-Wassermann and pre-arsenobenzol era and taking advantage of the more powerful modern weapons and methods, and combining these in a manner to obtain results with most benefit to the patient as a whole. All the older workers, among whom were many brilliant clinicians, laid great stress on the time factor, treatment continued for many years, and with mercury and the iodides as their only method of attack, obtained good results. Some of us in Newark have had the advantage of being associated with Dr. Wallhauser, Chief of the Department of Dermatology and Syphilology of the Newark City Dispensary for the past 35 years, one of the largest syphilis clinics in the United States. His teaching has been that 5 years should be a minimum length of time for treatment and that there should be no extended rest intervals.

In the arsphenamine era of the last decade we know that treatment, insufficiently followed through, resulted in early allergic response, and tertiary lesions appeared sooner than was usual under the preceding régime. And in a recent report covering a series of 5000 cases, by Stokes, Cole, Moore, O'Leary, Parron and Wile, they show that, dating from the onset of treatment, in those cases seropositive in the primary stage, and those with florid secondaries, the proportion of relapse is less than in those cases seronegative at the onset of treatment. This tends to indicate that the systemic defense mechanism gradually develops a resistance in the patient to the infection, and that it may not be well to strenuously interfere too early with this natural defense measure. Is it not possible to modify this interference and also avoid any chance of an early allergy, by always starting treatment with the slower acting spirilicides and using them for a longer period of time, i. e., 2 to 4 months of mercury and bismuth before using any sulpharsphenamine: and disregarding the slower clinical and serologic response on the part of the patient? Feeling that very active early treatment may inhibit or lessen the body's incentive to develop its own systemic defense, it is probable that a slower attack will avoid those errors, while

supplying the help necessary to combat treatment, remembering the stress on the organs of elimination from the long continued use of the heavy metals, our clinical experiences have demonstrated that good results may be achieved by using smaller amounts of all the drugs than is generally advised; provided treatment is carried on continuously over a long period. It is not necessary to keep just this side of the toleration threshold in order to effect a cure. With smaller dosage over a long period of time, there is less danger of saturation and overdosage; elimination problems are reduced greatly; sensitivity to drugs detected with a milder degree of reaction; which all helps obtain fuller coöperation of the parents, and the rest periods are eliminated. We control and guide our treatment principally by the ability of the patient to utilize the drugs, being ever watchful for signs of intolerance in the patient.

Osborne and Putnam, in a recent article on heredosyphilis, considering the question of "special problems", state, regarding interstitial keratitis: "Intensive combined treatment is indicated from the beginning, with no rest intervals until the disease is thoroughly controlled. In 30 consecutive cases of unilateral keratitis we have not had a single failure nor a relapse; nor has the second eye become involved after therapy was started." Stokes, in his book, states: "The attack of interstitial keratitis should be treated to an absolute standstill, and no sign of activity should be detectable by the ophthalmologist before the patient is placed on any prolonged rest interval." In such an emergency, intensive and combined treatment is indicated, but that part of both statements which refers to continuous treatment reflects an idea of what the treatment of syphilis generally should be. Let it be imagined that there is some resistant, almost inaccessible, spirochetal nest established somewhere in the body, producing no evident symptoms, but which requires a sustained drive over a long period in order to root out and destroy the last invader. A routine plan embracing these principles has been followed for several years by our Staff at the Newark City Hospital and at the Newark City Dispensary Clinic under Dr. Sellers, with very encouraging results. Routine serologic

and social check-ups are available only for the past 3 years and because of this fact no definite data will be detailed but we hope soon to make a comprehensive report, comprising cases from 8 Essex County institutions which are collaborating on a study of syphilis and using group controls for this and other plans of treatment.

As a prerequisite of treatment, careful nutrition and hygienic measures are, naturally, of the utmost importance. Most workers agree that combined treatment, giving sulpharsphenamine and bismuth simultaneously, is the proper procedure in early stages. Clinical signs disappear more rapidly and the Wassermann reaction becomes negative quicker, but this plan may tax the organs of elimination; rest periods are necessary; there is again the question of interfering too much with development of the systemic defense mechanism; and, except in emergencies, the combined treatment is not given under our plan.

We have never used arsphenamine for infants or children. From our experience, and from reading of the literature upon the arsenobenzols, we feel that sulpharsphenamine is the drug of choice, and intramuscular injections the best manner of administration. Our dosage of sulpharsphenamine and neo-arsphenamine is considerably less than that generally advised, and in a comparison of cases thus far treated, we find this method compares favorably with any other. Mention might be made at this point that for a long time, at the Mountainside Hospital Clinic, no adult, regardless of circumstances, has received more than 0.3 gm. neo-arsphenamine per dose, and that only once a week. For 3 days between arsenobenzol treatments, we have these patients take very small doses of mercury and potassium iodide internally. While clinical and serologic changes are a little slower, we believe the smoothness of treatment, and the general health of the patient after a 2 years' course, justify our regimen; and, eliminating the rest periods means that the patient receives a fair total quantity of the drugs employed. Thus, in heredosyphilis, our dosage of sulpharsphenamine runs from 0.01 gm. at birth to 0.15 gm. at puberty. Bismuth and mercury are not given intravenously; principally because they do very

well intramuscularly, and intravenous injections of these drugs is not practical for a baby, and the mercury and bismuth preparations for intravenous use have not yet been properly evaluated.

Bismuth is almost as effective as neoarsphenamine and is very well tolerated by children. The dose is $\frac{1}{8}$ gr. at birth, up to 1 gr. at puberty. Bismuth has almost supplanted mercury in the treatment of syphilis by most workers, but mercury is retained in our plan because we think a change of drug has a beneficial effect, and mercury has some spirilicidal action; and, its milder action is at times indicated and, in small doses by mouth, replaces the rest period.

Mercury is given by injection: the soluble salt—succinimide—of mercury gr. 1/24 to initiate treatment; and the insoluble salicylate gr. 1/16 after treatment has been carried on for some time. As soon as is practicable, mercury is given by mouth, under the following conditions; if for any reason injections cannot be given regularly or, if the parent is unable to bring the baby to the clinic; continuous mild treatment being thus insured. The following prescription is used: Hydrarg. bichloride gr. $\frac{1}{8}$ —1/250 (dose gr. 1/250). Potass. iodide dram i to ii—(dose 2-4 gr.). Aq. q. s., ad. Oz. iv.

Inunction. When other methods cannot be used, try Ung. hydrarg. 50% U. S. P., dram i once a day.

Iodides. Empirical use of the drug seems justified, apparently helps elimination of the heavy metals, and has a beneficial influence on granulomatous tissue. It is used combined with mercury, as just noted; and when sulpharsphenamine and bismuth are being administered, we give a moderate dose of iodides 3 times a day for 3 days each week. Its use is especially recognized in the later visceral lesions.

The following scheme is our routine plan for an average syphilitic baby; a premature or abnormally small baby would, of course, receive smaller amounts of the drugs until the infant picked up: First 2 weeks, Hg. succinimide (Sol.) 1/24 gr. 3 injections per week. Next 6 weeks, bismuth $\frac{1}{8}$ gr. 2 injections per week.

Two years thereafter. Using a single drug at a time and changing the drug every 6 weeks.

Sulpharsphenamine—0.01 gm. at birth to 0.1 gm. at 2 years; intramuscular injection; 1 a week for 6 weeks. Hg. and KI, or KI, internally.

Bismuth— $\frac{1}{8}$ gr. at birth to $\frac{3}{4}$ gr. at 2 years. Intramuscular injection, 1 a week for 6 weeks. KI internally.

Mercury salicylate—1/16 gr. to $\frac{1}{8}$ gr. Intramuscular injection, 1 a week for 6 weeks. May substitute Hg.-KI mixture for injection. Inunction if above not practical.

Third, fourth, fifth years—Each year give about $\frac{1}{2}$ the treatment of the first year.

Each year, arsenobenzols—Two courses of 6 weekly injections: 0.1-0.15, if practical, working into intravenous neo-arsphenamine instead of intramuscular sulpharsphenamine.

Bismuth and Hg.—Injections every 2 weeks instead of weekly. Mercury and Potass. iodide mixture at intervals.

In syphilis, we must treat both the patient and the disease, and no routine plan can be stated definitely; the human equation, complications, accidents, peculiarities of host and varying virulence of the organism, will require frequent modifications of any plan of treatment; but in the short time we have followed this plan its results have encouraged us to persist in our efforts. So far, the relative results compare favorably with what we have accomplished under our former routine, of more intensive treatment and rest intervals; this treatment is smoother, and the rarity of accidents and complications due to treatment is gratifying. Because of this latter feature, coöperation of the parents is better than formerly. A certain proportion of clinic patients cannot, or will not, appreciate the significance of syphilis, and with any plan of treatment our endeavors will meet with discouragement.

Undoubtedly, the first question any physician would ask, as a reaction to this extended course of treatment, would be—is this plan practical? Will any mother bring her child regularly for treatment over such a long period? The treatment of syphilis falls far short, at best, of what we hope for the future, but at the present time there is no known short-cut to a cure; too many youngsters are still coming

into our clinics with tardive syphilis and we all are agreed that long periods of treatment and observation are necessary in the light of our present knowledge of how to master this disease. If we in the profession cannot of ourselves control and direct the management of syphilis over a period of 5 to 10 years, then the writer, for one, is ready to ask the state to intervene to the extent of making treatment compulsory through the medium of the Courts; in the meantime urging all to pray that the County Medical Societies, through the local Health Officer, be given the power to recommend and be responsible for the medical personnel in the various districts.

DISCUSSION

Dr. H. J. F. Wallhauser (Newark): I want to add my congratulations to Dr. McCauley for presenting this subject—treatment of syphilis—from a rational viewpoint. No other malady has had more diversified opinions regarding the character of treatment, especially regarding dosage, which factor has been in dispute ever since its beginning several hundred years ago with mercury, which was given in enormous doses, to the point of salivation; the effect of the remedy in controlling the disease being weighed by the amount of saliva that could be caused to flow, often being measured by pints in a day. Deaths from ptyalism naturally resulted and the remedy was abandoned for many years, during which time treatment consisted of simple hygiene with a low diet.

Comparisons by good authorities at that time claimed better results on the non-mercurial plan. Gradually, however, mercury was again added in treatment but from an entirely different viewpoint, where *individual tolerance* to the remedy was the deciding factor in dosage, the remedy being discontinued on the slightest odor to the breath, which was considered the first sign of ptyalism.

A similar experience resulted with arsphenamine of which large dosage was advocated on the ground that complete sterilization was possible with a single dose and although this was early discredited, yet some are still following that idea, but modified in short courses of intensive treatment.

As Dr. McCauley has outlined, the general hygiene of the patient is important, and a continuous plan of treatment arranged according to tolerance of the patient, seems logical. His results thus far have been very favorable and surely warrant a continuance of the plan.

Dr. Louis J. B. LeBel (Nutley): I am very glad that Dr. McCauley mentioned the defense mechanism which the body cells set up against the spirochetal infection. Casselman, in an admirable paper before this body 3 years ago, stated that this defense mechanism interferes with the reproduction of the spirochetes, and in 5 years, more or less, may make the patient noninfectious, not only in ordinary contacts, but also in the relationship of mother to fetus. We have all seen cases of interstitial keratitis which did not clear up completely under specific antiluetic treatment, but which did respond to a severe protein shock, which is simply

an artificial stimulation of this natural defense mechanism.

There is a growing opinion among many syphilologists, and I think Dr. McCauley among them, that smaller doses of the arsenicals, along with mercury or bismuth, given continuously, and with no "rest periods", interfere less with this natural defense mechanism than intermittent overtreatment alternating with prolonged "rest periods". I am inclined to agree with this opinion.

From the standpoint of prevention, and in view of the fact that approximately 2% of all pregnant women are syphilitic, a routine Wassermann test should be done on every pregnant woman during her first month of pregnancy, and if positive, she should receive continuous treatment throughout pregnancy, which will practically assure her of a non-syphilitic child, needing no treatment after birth. The mother should, of course, continue treatment for her own sake. If an infected pregnant woman has received 5 months or less of treatment during pregnancy, it will be advisable to continue treatment of the baby after birth—for at least 1 year. However, as Casselman has stated, the duration of the mother's infection may have an important bearing upon this, and more complete statistics may show that post-natal treatment of a baby is unnecessary in many cases where the maternal infection is of 5 or more years' standing. However, in all cases, the babies should be carefully watched for signs of infection, and Wassermann tests taken at least 4 times during the first year.

Pregnant women are now educated to the importance of routine urinalyses during pregnancy, and, with perseverance, it is possible to educate them to the equal importance of an early routine blood test. This is part of our duty to society.

Dr. N. B. Heller (Newark): Congenital syphilis is a social as well as a medical problem. Sociologically, we know that the great majority of cases are due to the antemarital infection of the male partner. According to Fournier, 67% are of this class, while Solomon's statistics put as high as between 76% and 90% falling under this classification. We also know that the danger of infection varies with duration of the disease, and while no definite time limit can be given, as a relapse may show up unexpectedly in a case under observation—I mean, by that, a case which is considered clinically cured or at least arrested—the longer the period between the original infection and the exposure of a partner to infection, the less likelihood there is of transmission of the disease.

Statistically, we can say that 70% of all infections take place within the first 3 years of the disease, while only 2½% of infections occur after 10 years from the original infection. This applies to cases where the male partner is the original source. In females, the safety period as to transmission is more uncertain. On the whole, transmission will depend on the following factors: (1) Duration of the infection. (2) Sex of the patient. (3) Individual disease, and the presence or absence of relapses. (4) Amount and type of treatment.

Canon, in a review of 200 cases of congenital lues, found that over 60% were in first pregnancies, and that the age of the patients when first seen was, on the average, between 10 and 15 years. These facts tell us how to prevent, and how to take care of these conditions. Attention should be paid to antemarital infections. The more or less accepted rule laid down by Hoffman, Finger, Stokes,

and others; that is, 3 years of treatment; 2 years of observation without relapses; a negative serology, including a negative spinal fluid; are necessary before any matrimonial ventures. Also, there should be close supervision of all suspected pregnancies, as pointed out by Dr. McCauley, especially in primiparas, together with earlier treatment of those infected.

We, at the Newark Beth Israel Hospital, have been fortunate in getting the fullest coöperation from our Social Service Department, where all suspected cases are referred to our service and are closely followed up.

Dr. J. E. Kiley (Newark): When we consider the child in the prenatal period, it will be well to recognize that pregnancy does not reduce susceptibility to infection by the *Spirochete pallida*. The defense mechanism of pregnancy alters the clinical manifestations of syphilis in such a way that primary and secondary lesions are either absent or so mild that they are not recognized. The pregnant woman tolerates routine treatment well and rarely has a nitritoid reaction.

The course of heredosyphilis, once past the infantile stage, shows more rapid healing and a higher degree of immunity leading to negative serology, in a shorter interval, than in acquired syphilis. Early recognition of eye changes, visceral involvement, nasal and dental signs, bone changes as manifested in epiphysitis, osteochondritis, and hydrarthrosis, is imperative. The tired, apathetic child, the subject of epilepsy, convulsions, Little's disease, paralysis or feeble intellect, should have a searching investigation for congenital origin. There are obscure heredosyphilitics without clinical or serologic signs, who show constitutional inferiority, subnormal weight and susceptibility to infections, who improve when put on antisyphilitic treatment.

Bismuth, as McCauley has noted, is invaluable in the management of congenital syphilis and makes possible a smooth, effective, and less painful course for the child who must face 5 years or more of supervision. We are often deluded by the detail man who exploits a particular brand of the drug. Bismuth comes to us in many forms: colloidal, metallic, water-soluble, oil-soluble and water-insoluble. Bismuth is valuable in all stages of the disease and acts well on the lymphatic glands, blood, and cerebrospinal fluid. Its elimination is gradual from the body. The complications from bismuth are easily curable, and avoidable in the sensitive individual, by lengthening the periods and cutting down the dose. The stomatitis, albuminuria, asthenia, and pigmentation are rarely serious.

In response to the question someone asked about the composition and action of various bismuth preparations, may I answer, briefly.

The oil-insoluble bismuthate of quinine contains 24% metallic bismuth suspended in a neutral vegetable oil (10 mg. to 1 c.c. of oil). Toleration is good but this is a feeble form of bismuth and because of its slow absorption may be used for visceral and cardiovascular syphilis.

The water-soluble forms, or the oxides and oxycarbonates, contain 00 to 82% of metallic bismuth in 10% concentration. The dose is 2 c.c. in courses of 10 to 12 injections. Action on the blood is rapid and elimination fairly rapid.

The fat-soluble bismuths contain approximately 4% of the metal. Elimination in the urine is detected in 3 hours after injection and continued up to ½ to 2 months. This form rarely produces

albuminuria and seldom alters the blood urea. Local pain is slight. Levaditi considers the fat-soluble bismuth most efficacious and more easily tolerated and assimilated. The fat-soluble bismuth is taken up by the lipoids in the endothelium of the capillaries, which would indicate that it is taken up in the blood to give immediate therapeutic activity; also prolonged action due to the slow dissociation of the fat from the bismuth. Dose for infants 0.1 to 0.2 c.c., giving 4-8 mg. of the metallic bismuth.

All heredosyphilis patients should have the benefit of spinal fluid examination and they will give findings similar to those in acquired syphilis. The potential paretic or neurosyphilitic may be thus detected years before clinical symptoms appear. Paresis seldom shows definite signs before 10 years and is marked by epileptic seizures and mental deterioration. The evolution of heredo-neurosyphilis is slower and requires a longer time to run its course than the acquired forms. Treatment by tryparsamide and the arsenicals has been unsatisfactory. Some favorable results have been reported from the use of malaria and fever therapy.

INFLUENZAL MENINGITIS; REPORT OF A RECOVERY*

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The reason for presenting this subject is that recovery is extremely rare, and I have had the good fortune to have watched a patient during this year to an apparently complete recovery from an influenzal meningitis.

The first case I recognized was seen in 1925, while on service at the St. Peter's Hospital, in New Brunswick, and illustrates the more normal course of this infection. The patient was 2½ years old and was sick for a total period of 2 weeks, beginning with the indefinite symptoms of a subacute, febrile infection, probably called "intestinal gripe", as he lost appetite, vomited and had loose stools for a week, and on the ninth day retraction of the head was noticed and headache developed. He was in the hospital only 5 days before death and presented the picture of a well-developed meningitis, but was remarkably lucid mentally until the day he died. The spinal fluid was turbid and increased in amount, under pressure and so full of pleomorphic Gram-negative organisms on direct smear that one could hardly

* (Read at the 165th Annual Meeting of the Medical Society of New Jersey, Section on Pediatrics, Asbury Park, June 5, 1931.)

believe the smear was not from a pure culture of organisms. The culture developed in 36 hours as a typical influenza bacillus. Culture from nose and throat showed a mixed infection, with influenza bacillus present.

Autopsy was done soon after death and the whole brain surface was congested and edematous, covered in large areas over the dorsum and the base with thick, fibrinopurulent exudate, and in handling that organ without gloves my hands became infected with superficial tiny furuncles, which evidenced the virulence of the organism.

Another case seen this spring illustrates the extreme of virulence which the infection may demonstrate. A patient to whom I had made only 2 or 3 visits for illness, in her life of 20 months, was running about the house with a "cold" on Sunday morning when the family started to church. Other members of the family had just recovered from grippe, including an acute otitis media in an older sister. The patient suddenly, during the morning, crumpled and fell on the floor in her very tracks. The temperature mounted quickly to 104° and she was evidently completely overwhelmed by a severe infection which was thought to be pneumonia, but definite signs did not develop. Meningeal signs developed after 18 hours, and in 36 hours the child was dead. The spinal fluid was turbid and loaded with pleomorphic organisms which were cultured out in New Brunswick and at the Rockefeller Institute in New York as *Bacillus influenza*.

A third picture, illustrated by the case I wish particularly to discuss, is the only one I have seen, or heard definitely of, which recovered. Marion R. was just 2 years old and was taken sick 3 weeks before admission to the hospital with a bad "cold", which was followed by bronchitis and pneumonia, and as she was apparently about to recover the doctor noticed a beginning stiffness of the neck and an internal strabismus of both eyes, right greater than left. The day before admission these signs were more marked and were accompanied by a tremor of the right hand. She was admitted to the Middlesex Hospital for study of the meningeal symptoms; i. e., opisthotonos, stiff neck, tremor of the right hand, double internal strabismus, repeated and sudden cry, headache,

tache cerebrale and fever. There was no Kernig, Brudzinski or Babinski reaction. The temperature fluctuated from 100° to 103° for first week in hospital, then for 1 week with rise to 1° less each day than during the first week; in the third week not above 101° and in the fourth week not above 100° unless lumbar puncture affected it sharply. There was nothing the least bit dramatic about the course toward recovery, except for the evident progressive improvement in face of the most gloomy pessimism for a bad prognosis. The symptoms gradually diminished, and with exception of the strabismus were all absent when she left the hospital after 5 weeks.

The most important findings were those of the laboratory: Hemoglobin, 69%; R. B. C., 380,000; W. B. C., 11,200; polys., 69%; lymphs, 26%; monos., 5%. Culture, negative. Lumbar puncture was done, in all, 14 times. The fluid being at first cloudy, increased in amount, and under pressure. Cells varying on various punctures were 510 to 1500; after 4 weeks down to 150, and after 5 weeks to 34. Globulin 1+ for 3 weeks. Sugar, at first, was only slightly decreased but after 1 week absent; remaining absent 2 weeks; gradually returning to the normal amount before discharge by the usual qualitative tests. The organism was *B. influenza* in pure culture, and found constantly and repeatedly for the first 2 weeks of the child's stay in hospital. The colonies of the growth should have been studied more carefully than they were, because there is some evidence from the work being done at the Rockefeller Institute Hospital that there are 2 types of organisms—one producing a rough colony as it grows, the other a smooth one, and the smooth-growing colony organism seems to be associated with the milder infections.

An interesting situation occurred in the fourth and fifth weeks, when the child was most evidently recovering and we wished to keep track of the spinal fluid changes. She was comfortable—eating well and running a temperature of only 100° at that time, but with each lumbar puncture the temperature shot up to 102.5° or 103° and remained there for 10 to 12 hours. The child then looked definitely sick; apathetic, fussy, irritable and without ap-

petite. We had 2 final, normal spinal fluid tests before discharge. Since discharge she has been examined repeatedly and is cheerful and happy at home, acting quite herself and showing absolutely nothing of residual affection except the strabismus, which is clearing and is evident to observers now only when she is tired.

DISCUSSION

Dr. F. W. Lathrop (Plainfield): It is a relief to hear about successes in the treatment of this illness which we have considered so invariably fatal. Dr. Johnson is fortunate in being able to report a recovery from meningitis. Dr. Josephine B. Neal, of the Board of Health of New York, is the only one with whom I have talked who has seen a patient recover. The reports usually give a fatality of 92%. The negative blood culture is interesting.

The work at the Rockefeller Institute suggests that there are 2 types of this influenza strain, one much more virulent than the other, and it is said that the blood culture is positive in the fatal cases. Most cases of influenzal meningitis are primary infections, with history of no previous illness, and they are the patients having a positive blood culture and who tend to die very quickly.

Dr. Maurice L. Ripps (Elizabeth): We also had a patient recover under Dr. Stern's treatment, in Elizabeth, which prompts me to assure Dr. Lathrop that more than 1 patient has recovered; though we were just as much surprised as any one else that the patient got better. It is rather difficult to get a cultural growth and check-up on it, for meningitis, but if we can make a quick diagnosis, and a reliable one, within a few hours, we have more hope of recovery. I was much interested in a recent report by Greenthal, of Milwaukee, who said that in 13 cases of meningitis every spinal fluid reduced a nitrate; a test of the spinal fluid which can be done inside of 4 to 6 hours.

Dr. Julius Levy (Newark): So far as the past discoveries in medicine are concerned, as they say in the operetta, "There is always a never, and never an always". I do not think the recoveries from any of the types of meningitis are so extremely rare as we have believed. I also have observed a patient make a complete recovery, and I think recovery from tuberculous meningitis has been well authenticated. We could not believe the child was seriously sick in our case of influenzal meningitis, in spite of the positive spinal fluid findings and other signs.

Did Dr. Johnson refer to the reaction to some of the spinal punctures? I think this is a rather serious question. When confronted with a child who does not seem to be very ill, shall we continue to make spinal punctures, and how frequently? I had thought we should go on making spinal cultures so long as we had anything in the fluid, even if the child seems to be getting better.

Dr. G. H. Lathrop (Newark): May I speak on

a point which both Dr. Lathrop and Dr. Johnson touched, and which I think will have a good deal of practical importance in the future. They both mentioned the fact that there are possibly 2 strains of *Bacillus influenzae*, one growing with a rough colony, the other with a smooth. Zinsser, last autumn, at the Academy of Medicine, brought out the point that in growing any organism, if it be virulent the colonies are apt to be rough; and, as the same organism becomes attenuated the colonies become smoother. The practical point in that, comes in relationship to the making up of vaccines of one kind and another for any sort of thing; the rough colonies being the virulent type of organism, are probably the colonies of choice for that sort of work. According to his idea, it does not represent 2 *types*, the rough and the smooth, but simply 2 *states of activity* in the same organism.

Dr. Finkelstein (Newark): I was very fortunate one year in Washington, in seeing 2 cases of influenzal meningitis; 1 in a Dr. Kirby Smith, who was an intern at the time in a hospital; which started as an extremely fulminating case, with sudden onset and a positive blood culture. The blood cultures were rechecked at the United States Hygienic Laboratories, in Washington. The other patient was a young child. Treatment consisted of repeated spinal punctures, these being done twice a day, depending on the type of fluid returned; repeated blood transfusions and repeated x-ray therapy to the long bones of the body. Both made full recovery. This was about 4 years ago and to date there have been no residual symptoms.

Dr. Royce Paddock (Newark): I just want to say one thing regarding the smooth and rough colonies. So far as I know, that work is very recent. I believe that the virulence of the smooth and rough colonies varies according to the type of bacteria. In some species the virulent types are rough, and in some others smooth, but they have not all been investigated as yet.

Dr. F. C. Johnson (Closing): It is extremely interesting to hear so many reports of recoveries that have been observed and not reported. It might be very well to report those cases because of their extreme interest to every physician. Dr. Wollstein, at the Baby's Hospital, worked on influenza several years ago. Dr. Rivers followed her, studying conditions associated with this infection. They had not heard of more than 2 or 3 recoveries, and here we have collected 4 or 5 this morning. They ought to be recorded if simply for the purpose of giving us more encouragement in actively treating patients by whatever method becomes indicated in the future, whether by lumbar puncture, vaccines, chemicals or whatever methods shall seem desirable as we progress.

Regarding the frequency of spinal punctures, the determination of how long to continue and when to stop the punctures, is a matter of clinical judgment, always has been, and it is certainly difficult. The danger of infecting your patient directly, by a slip in technic, is possible in the best hospitals and, occasionally, in the best hands.

IMPORTANT FACTORS IN SURGERY OF ACQUIRED AND CONGENITAL FACIAL DEFORMITIES*

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The end-results in facial reconstructive surgery depend on many factors, the most important of which are, in addition to a thorough knowledge of surgical technic, a precise analysis of the deformity, a well-outlined plan of the successive operative stages, and a certain artistic inclination. Although in many instances the deformity appears, on the face of it, easy to analyze, this is not always the case. Analysis of the deformity consists in the exact estimation of the size, shape and location of the defect; it permits differentiation of the apparent anatomic defect from the true one, thus rendering a more thorough reconstruction possible. When successive stages are required, it is of paramount importance that each surgical step follow according to a definite plan. The necessary skin covering may be obtained from the vicinity of the defect or from a distant part of the body, free or on a pedicle, depending on the texture, color and hair-bearing qualities of the skin. Choice of the proper method in each instance depends to a great extent on the experience of the surgeon.

In Case 1 (Fig. 1), failure following previous reconstructions was largely due to lack of analysis of the defect and of the operating plan. The Thiersch graft used in this instance could not replace the forehead skin and the eyebrow without producing an unsightly deformity; the lack of provision for replacement of the missing part of the upper eyelid resulted in persistence of the ectropion. The same lack of analysis was responsible for failure in Case 2 (Fig. 2), where partial loss of the lower lip was ignored during the reconstruction, and the cheek and lip defects closed without consideration as to the normal topographic relationship.

Psychic factors. A depressed or hypertrophic scar, or any other skin blemish, attracts lit-

tle attention if on concealed parts of the body, but the same condition on the face or neck may be a source of constant anxiety to the bearer because of self-consciousness and professional handicap. The professional and social devaluation of an individual with a facial deformity must be taken into consideration in this age where appearance of the wage earner has its say. The esthetic side of this surgery, the supersensitiveness and the mental attitude of the individual, as well as the extent of the deformity, urge caution. The over-sensitive individual, whose complaints are generally out of proportion to his condition, is far from being a safe surgical risk, because he is rarely satisfied, no matter how good the result may be. Still another type of patient is that found among professionals, women usually, who "fancy" that certain parts of their anatomy need improvement. It is exceedingly difficult to convince patients in this category as to the triviality of their condition and it is far better for the surgeon to leave them alone. Unfortunately, however, they will eventually find someone, generally unqualified, who will undertake to satisfy their whims. The majority of these patients possess a normal equilibrium and usually appreciate efforts to remedy their condition.

Anesthesia. The advantages of local anesthesia in reconstructive surgery are obvious, as this surgery is often protracted and frequently requires successive stages at short intervals. General anesthesia given under similar circumstances is apt to be followed by serious complications.

In Case 1, a general anesthetic was given, elsewhere, 4 times in the first 5 weeks after the accident. The first operation we performed (this being the fifth operation the patient had undergone), was done under general anesthesia because of the extensive character of the procedure and the extreme nervousness of the patient. During the following operative stage, which consisted in closure of both eyelids, the patient refusing a local anesthetic, general anesthesia had to be induced and the patient died during the operation, from the effects of the anesthetic.

Infiltration anesthesia with 1% solution of novocain containing a few drops of adrenalin is the procedure of choice.

* (Read at the 165th Annual Meeting of the Medical Society of New Jersey, Section of Ophthalmology and Otorhinolaryngology, at Asbury Park, June 5, 1931.)

I. ACQUIRED DEFORMITIES

Traumatic deformities have greatly increased in civil life coincident with the mechanical development of the age. Based on the present ratio, the Metropolitan Insurance Company estimates close to 10,000,000 injuries in this country, for 1931, through accidents of all types. This problem has acquired such enormous proportions as to call forth urgent action

Emergency repair of facial injuries. The repair of extensive wounds of the soft tissues should be done with strict asepsis, in an operating room, and *not in the emergency room of a general hospital*, as is often the case. Thorough hemostasis, cleansing of the wound by means of prolonged irrigation with warm boric



Fig. 1-A (Case 1)



Fig. 1-B

Injury to forehead and upper eyelid

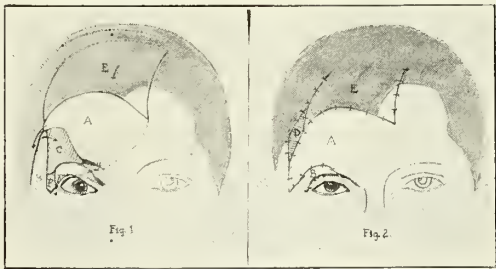


Fig. 1-C

on the part of the medical profession and the government authorities. Burns produce the most extensive ravages because of the large surfaces often involved. Chronic diseases, like cancer, syphilis, and lupus, may also be responsible for the occurrence of facial deformities. Radical surgery of facial malignancies usually requires extensive reconstruction of the postoperative defect.

acid or saline, the use of Dakin's solution in the presence of infection, are each of great value. All dead spaces must be obliterated, and tension on wound edges eliminated by proper undermining and subcutaneous closure of the defect. In wide lacerations around the facial cavities, the skin flaps must be approximated with great precision, in order to reestablish the normal topography of the region. (Fig. 2) In

great losses of tissue communicating with facial cavities, skin and mucous membrane must be sutured together around the edges of the cavity to avoid scar formation and retraction; the early approximation of skin and mucous mem-

used, but it should not be permitted to remain in the skin longer than 2-3 days. After removal of the stitches, the wound edges are kept in approximation by collodion gauze



Fig. 2-A (Case II)

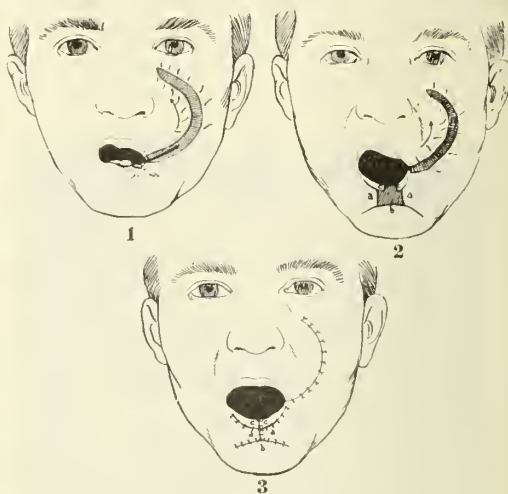


Fig. 2-B



Figs. 2-C and 2-D

Kara. Partial loss of lower lip; injury to left cheek

brane also assures adequate blood supply in the tissues and makes them available for future reconstruction. Fine suture material, such as horsehair, or paraffinized silk, should be

strips and the area exposed to artificial or sun light daily. Proper emergency repair will prevent permanent disfigurements and great economic waste (Fig. 3).

Recent nasal fractures. Following the accident, when the fracture is closed and masked by edema, the true diagnosis is often missed. After a certain period of time, the displaced nasal bones become improperly set and a conspicuous deformity results. The following points are important in the early treatment of nasal fractures:

(1) A good radiogram of the fracture should be taken.

(2) As few manipulations as possible should be carried out endonasally to avoid infection which is easily stirred up.

(3) Loose bony fragments which remain connected with the periosteum should not be removed, as they "take" more often than is usually thought.

(4) After the swelling and pain have partially subsided, which usually occurs 2 to 3 days after the accident, reduction should be proceeded with, preferably under local anesthesia.

(5) A precise alignment of the displaced fragments may require infracturing and complete mobilization of the entire bony bridge. The Adams' forceps seem best suited for mobilization of fractured nasal bones and septum, which last structure is often involved.

(6) The nasal fragments should be kept in place by a properly prepared internal splint when there is a tendency to inward displacement. An external lead splint applied for about 3 weeks, secures the fractured bones and displaced cartilages in a proper position.

Old nasal fractures. The repair of an old nasal fracture with a lateral displacement requires subcutaneous resection of a bony fragment from the wide nasal wall and infracture of the nasal process on the opposite side. Dorsal depression, if present, is corrected by means of a proper cartilaginous graft, or transposition of the lateral nasal cartilages. In post-operative treatment of old nasal fractures the use of unilateral splints, designed to maintain the displaced nasal pyramid in the middle line, is of paramount importance. Post-operative nasal deformities usually consist in a depression of the cartilaginous dorsum, with or without, a flattening of the nasal tip due to faulty technic during a submucous resection. Deformities of this type are extremely com-

mon because of the great number of submucous resections done. These errors could be averted by conservative resection of the cartilaginous support of the nasal tip and dorsum. The writer corrects an isolated dorsal depression by transposition of the lateral cartilages, which are sutured endonasally. Traumatic flattening of the nasal tip is repaired by raising the columella and dorsum by 2 cartilaginous grafts. (Fig. 4.)

Late repair of facial injuries. Large areas of scar tissue often accompanied by functional disturbances due to traction of the eyelids, nostrils and lips, may be the sequence of faulty emergency repair (Fig. 2), or the end-result of an extensive primary injury (Fig. 3). The guiding principle in this repair is the replacement of all scar tissue by normal covering, and, wherever required, to provide a lining for the cavities; all this repair to be done with minimum additional trauma to the surrounding tissues. The reconstruction cannot be considered complete unless the contour of the face is re-established; in fact, what may seem to the surgeon a satisfactory surgical result, may be a complete failure from the cosmetic point of view. The cosmetic side of facial reconstruction must, therefore, be pursued with the same eagerness as the reestablishment of the function.

Providing the covering. The replacement of scar tissue by normal skin is the paramount factor in plastic repair. Numerous procedures for providing the required covering are in use today, and much has been contributed during the last few years to the technic of skin grafting. Thiersch graft is easily available and its use is indicated where large denuded surfaces must be quickly covered, as in the case of extensive burns, in order to eliminate infection, to hasten the healing process, and prevent contractions. Having thus accomplished a great functional and economic purpose, the unsightly Thiersch graft may later be replaced, if necessary, by a type of skin more nearly resembling that of the face. Improvement of technic during the last decade has enabled us to make use of the full-thickness graft to better advantage than ever before. An intermediate graft, containing only a part of the derm, may be advantageously used in instances where the Woolf graft is liable to fail; being

thicker than a Thiersch, and thinner than a full-thickness graft, it has greater healing powers than the Woolf graft, especially if applied to nonresistant surfaces, such as the cheeks and the neck, where complete immobilization of the graft is difficult to obtain; moreover, the intermediate graft gives a better cosmetic result than the Thiersch graft.

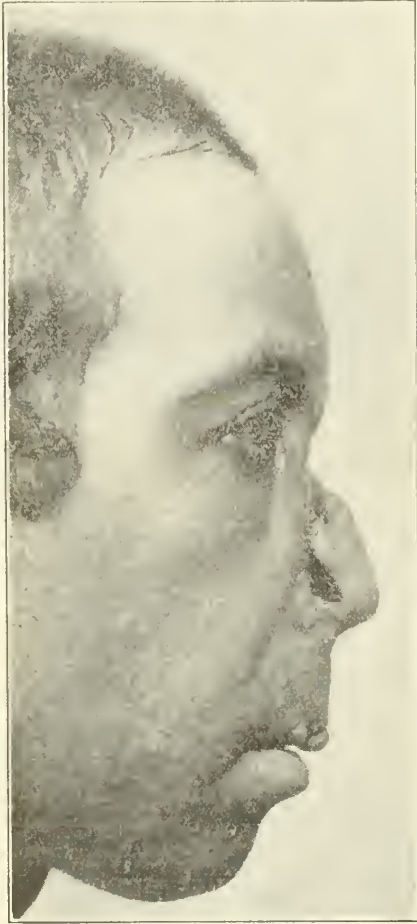


Fig 3-A. Before operation
Partial loss of nose and injury to eyelids

The shifting and rotating of the surrounding skins should be done whenever possible. The providing of skin covering from distant parts should be limited only to those instances in which the combined means of shifting and rotating of surrounding covering as well as the formation of flaps from the immediate neighborhood, are inadequate or contraindicated.

Keloid and hypertrophic scars. Keloid and hypertrophic scars are the most feared sequels

in cutaneous surgery of the face. Keloid is a fibrocellular growth of the corium, increasing gradually in size. It spreads laterally beyond the loss of substance which it replaces, and in this differs from the hypertrophic scar, which never extends beyond the skin injury.

The etiology of keloids is unknown but it is generally conceded that this condition always follows skin injury, which may often be so slight as to pass unnoticed; this accounts for the so-called "spontaneous" keloids. The growth starts in the corium around the vessels and consists of bundles of fibrous connective tissue; the vessels are affected beyond the

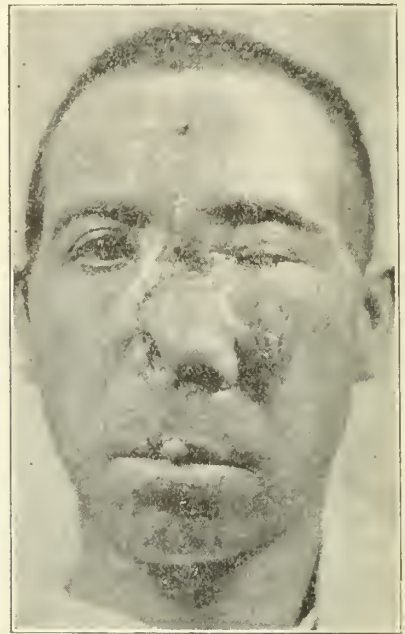


Fig. 3-B (Case III). Before operation

keloid and this explains its recurrence after a seemingly complete excision of the mass. Keloid formation renders any facial surgery dangerous, as it added additional deformity and limitation of function. As a rule, no surgery should be undertaken on the face without preliminary investigation as to the presence of this idiosyncrasy. If no scars can be found, a provocative incision should be made on a concealed part of the body.

Pfahler recommends irradiation by x-rays prior to and following removal of the keloids. In our practice, in excising the keloid mass, we leave on each side a narrow strip of the scar, in order not to inflict additional trauma during

the closure; the postoperative scar is exposed to 1 suberythema dose of x-rays on the day following the excision—this treatment being continued at monthly intervals for such a period of time as may be required by the condition; 4 to 6 treatments usually suffice. Radium should be used in instances where administration of x-rays is difficult because of location of

develop during the period of growth. The degree of the deformity depends on the extent of the nerve injury. Sagging of the face on the injured side can be mechanically improved by the use of fascia strands inserted around the buccal commissure and upper lip; the loops are extending from the temporal region toward the dropped buccal commissure and counteract



Fig. 3-C. After operation

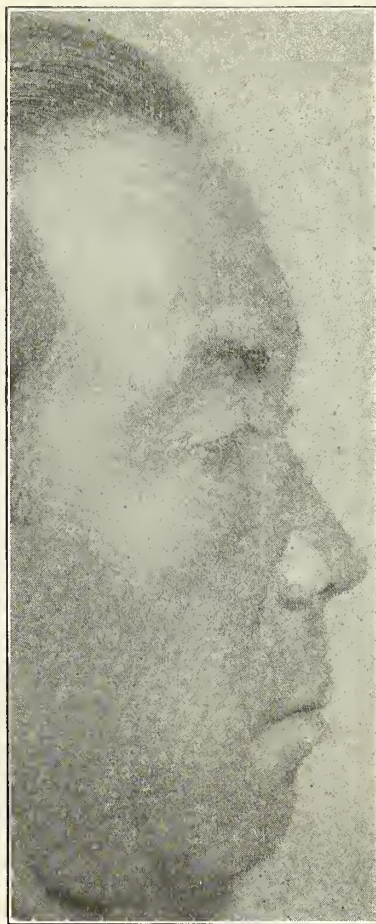


Fig. 3-D

Partial loss of nose and injury to eyelids and lip

the keloid. By following this technic, we obtain the most gratifying results.

Facial paralysis. The apparent disfigurement in unilateral facial paralysis is usually due to contraction of the muscles on the normal side and sagging of the soft structures on the injured side. When the nerve injury occurs in childhood, the disfigurement is more pronounced, as in addition to the lack of enervation, the muscles on the injured side do not

the over-activity of the muscles on the opposite side of the face. The dropped lower eyelid can be raised by inserting a fascia loop along the lid and affixing it to the aponeurosis of the frontal region. In adults, an additional "lifting" of the injured side of the face, by skin excision in front of the ear and in the temporal region, contributes to better end-results.

II. CONGENITAL DEFORMITIES

The origin of most congenital deformities is still undetermined. Some are fully developed at birth, others attain full development in later years. To the first group belong certain fissures such as cleft lip or cleft nose, a nevus, hairy moles, etc. To the second group belong deformities of the nose and ear as well as certain benign tumors such as lipomas, fibromas, hemangiomas and lymphangiomas.

Cleft lip. Cleft lip is the most common congenital deformity for which early correction is

present, is to be corrected together with the lip.

(3) The defect should be closed only after careful measurements of the lateral flaps.

(4) To avoid tension on the suture line, extensive undermining of the entire lip is required and the defect closed with deep subcutaneous sutures. The use of fine suture material in the skin, and application of a Logan's lip retractor, which eliminates any traction on the lip, will secure a good cosmetic result.

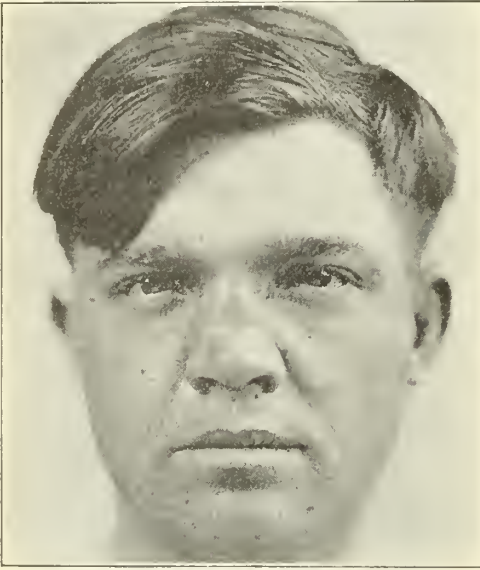


Fig. 4-A

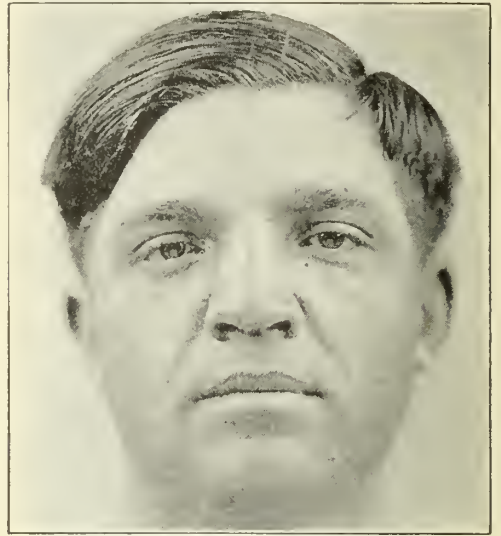


Fig. 4-B

Saddle back nasal deformity

required. Improvement in appearance of the lip, after repair, is often far from satisfactory to the experienced eye. Cleft lip cannot be considered completely reconstructed until all its components are scrupulously dealt with. Although it is next to impossible to duplicate a cupid's bow surgically, it is relatively easy to produce a symmetric lip of sufficient length and thickness, with an unbroken vermillion border, but in order to accomplish this, the following principles must be strictly adhered to:

(1) Surgical repair performed at an early age—6 to 8 weeks—the infant being in good physical condition.

(2) Deformity of the nasal alae, always

The Thompson and Mirault procedures are equally satisfactory provided the principles outlined above are strictly adhered to.

Hemangioma. A type of vascular tumor in which the deep vessels, especially the veins, are involved. These tumors are usually located on the face and are very common in infants and children. X-rays and radium are efficacious in the treatment of this condition; beta-rays being preferable to x-rays for superficial lesions. After shrinking of the blood tumor by radiation therapy, the entire mass can be safely excised and the defect reconstructed by the usual plastic procedures.

Port wine mark (nevus flammeus). Large nevi often involve extensive skin areas and

constitute a conspicuous deformity in children as well as adults. The prolonged treatment of these conditions by x-rays and beta-rays of radium, which is still used, is of no avail, and results in injury to the skin which becomes atrophic, keratotic, with a possibility for late radiation sequels. Plastic procedures described above for the repair of skin defects are indicated in these cases. By the method of partial repeated excision, these skin areas can be eradicated, because of the extreme elasticity of the normal skin.

sightly effect of the thin graft in forehead area, the lack of provision for reconstruction of the external 2/3 of the eyebrow and the ectropion of the eyelid.

(B) Photograph shows condition of face 4 weeks after first stage of reconstruction. All scar tissue in the right supra-orbital area was excised and the upper eyelid released from adhesions. The forehead defect (C) was covered by the skin flap A, and the missing 2/3 of the eyebrows replaced by a hair bearing flap (B) from the right temporal region. (Fig.



Fig. 5-A. Congenital nasal deformity (A) Reconstruction for excessive length of nose with over and cartilaginous dorsum and hanging columella

In *nevus vasculosus* (strawberry mark), where the lesion is elevated, and often reaches large dimensions on the face, the effect of beta-ray therapy is very satisfactory and surgery should not be attempted.

CASE I

(A) Boy, aged 18, with right supra-orbital skin defect, loss of external 2/3 of eyebrow, partial loss of upper eyelid and scarring of the right cheek, 5 weeks after an automobile injury. The condition of the para-orbital region as shown here is the result of repeated attempts elsewhere at Thiersch grafting. Note the un-

1-C.) Upper eyelid in a normal position. Th A mild nerve seda- was partially covered by tile.

CASE II

Male, aged 24, sustained part lip, malposition of upper lip left cheek in an automobile accident condition when seen by me. The wounds were sutured in room of a general hospital, and accident.

(A) Condition when to adjust itself

months were required to disinfect and epidermize the denuded surfaces and sinuses.

(C and D) Reconstruction embraced all scar tissue around the right nostril, glabella and left cheek. The nasal covering was undermined and rotated to the right. The cyst of the left cheek and laceration of the upper lip were repaired in separate stages. The obstruction of the nose required removal of the fractured bony and cartilaginous septum as well as of the nasal spine. The fractured nasal bones were re-set; costal cartilage support being provided for nasal tip and dorsum. The patient refused, at the time, to have the ectropion of the left lower eyelid repaired. As compensation for injuries sustained, the patient collected a substantial sum of money.

The interesting points in this case are:

(1) No emergency repair was done, and, as a result, almost a year was required for reconstruction of this facial deformity; which might have been avoided by early repair.

(2) A great financial loss was sustained by the community and the insurance companies.

(A) Post-traumatic defect of the middle third of the nose due to fracture of lower portion of nasal bones, displacement of septum and lateral cartilages, and flattening of nasal tip.

(B) Correction of the nasal deformity by 2 cartilaginous grafts; 1 for raising the dorsum and 1 for elevation of the nasal tip.

DISCUSSION

Dr. H. C. Barkhorn (Newark): It is especially interesting to have a talk of this sort come to this Section, because we all remember the old days in which the real plastic cosmetic cases came to us, whereas the acute traumatic ones went to the general surgeon, and it was about "neck and neck" as to who got the worst results.

I would bring to the attention of those of you who are heads of departments, that Dr. Maliniak draws our attention to the fact that *traumatic* work is *acute emergency surgery*. If you plan to do this in your department, you must either be prepared to get up at night and to give up Sundays or to teach your intern the fundamentals.

We are peculiarly proud of Dr. Maliniak's work because, in Newark, we were among the early groups to become *plastic conscious*. He has been doing this work over a long period of time now, and, as you all know, the remunerative patient is the exceptional one. In the vast majority of cases, it is the gilt-edged poor, or the acute traumas, in which there is a possible suit involved; and then, the lawyer gets his and the patient gets

his—and the doctor gets his but this time the *his* is—like Sherman's definition of war.

Chairman Hubbard: Is Dr. Kessler, of Newark, here? If not, the paper is open to general discussion. This is one of the difficult branches of medicine, it seems to me. I had a little experience in it in the army, but it was so small that I hesitate to speak about it. It is very interesting work; it is very tiresome work; it is tedious work.

Dr. Thomas Fitch (Plainfield): I think we ought to realize that no patient is too seriously injured to attempt plastic surgery. I recall 1 case, about a year ago, in which a girl was admitted to the hospital with a compound fracture of the skull. The brain tissue was oozing from this wound and the outlook appeared hopeless. We dislodged fragments of the frontal bone which had carried dirt and hair right into the brain tissue, and cut away the traumatized brain tissue, and to our surprise got a very good result. But at the same time, she had a fracture through her frontal sinus, with a lateral displacement of the nose, resembling the scoliosis which we saw in the picture. After this recovery, the patient came back to my office, a month later, and complained bitterly of this lateral displacement of her nose. In view of what appeared a more serious injury, we had overlooked this minor disfiguration, but if we had borne in mind that the serious injury does not displace later thought of the cosmetic end-results, we would all have been happier at a later date.

HEMORRHAGES IN THE VITREOUS OF YOUNG PEOPLE*

CHARLES FRANKLIN ADAMS, M.D., seek
Trenton, N.J., to ascertain the
and not to alarm

This is not a disease or a "weak heart". Hereditary diseases, such as tuberculosis, nephritis, certain as to the existences. Intra-ocular observation, before diagnosis, in from 10 to 20 short talk with the patient absorbed without explanation and reassurance is occasioned if we think the condition is denied by some medication, we will mislead writers. Focal A mild nerve sedation, Ellet, Redding, Young, Fine.

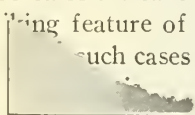
McCrea reports 15 cases on which may be said due to an exudation of blood origin, although of the vessel walls; all of which is its origin focal infection. Zentmeyer believes myocarditis suprarenal glands are frequent of systemic Charles Young believes that so

* (Read at the 165th Annual Meeting of the Medical Society of New Jersey, in Ophthalmology and Otorhinolaryngology, Newbury Park, June 4, 1931.)

a deficiency of blood calcium. F. T. Rogers has reported 2 cases of hemorrhagic retinitis in patients who complained that a dentist had left a piece of broken drill in each of 2 teeth; the teeth were extracted and the eye trouble disappeared.

George E. de Schweinitz, in the Section of Ophthalmology, of the American Medical Association in 1908, reported several cases of retinal hemorrhage from auto-intoxication; and, since then many cases have been reported with indicanuria as the only abnormal systemic finding. Earle made a similar report in 1882.

Occasional cases of hemorrhage in the vitreous complicating unciniriasis, or hookworm disease, are on record; and it is a question whether the hemorrhages were due to anemia, or to undiscovered toxin caused by the worm. Noll, in 1908, stated that hemorrhage of the vitreous may be due to tuberculosis affecting the choroid or ciliary body. Arnold Knapp, Stock, Cords, Gilbert and de Schweinitz, all mention tuberculosis as one of the many possible causes of retinal hemorrhage. Spencer believes that hemorrhage from the retinal vessels, in young adults, is almost always due to tuberculosis weakening the vessel walls. One striking feature of the disease is, however, the fact that in such cases rarely show other evidences



For purposes, O. T. may be given Fig. 1. If a reaction is obtained; 5 mg. Hiram Woods injections, and would be required. Improvement after Von Pirquet test lip, after repair, is often rapid. Davis has stated to the experienced eye, of the great value of considering completely rest and therapeutic aid its components are seen. Ophthalmologists are Although it is next to Hippel for restoring a cupid's bow surgery which for a time seemed produce a symmetrically discredited; especially and thickness, ophthalmic practice. As Derby border, but in It might be said that Von Hippel following prior to modern therapy in ophthalmology: and vaccine and serum therapy."

(1) Surprising, tuberculin was used in too age—6 to 8 and then there was a dissemination physical condition (acilli from the original focus of (2) Defect (monary usually), into every tissue body, with, of course, a rapidly

fatal termination. Ophthalmologists abandoned its use, literally, until 1900; there being but 1 recorded instance of its use, according to Derby, between 1893 and 1900, and that was by Zimmerman, in 1898, who used the new tuberculin (T. R.), in small doses, on a patient who had lost 1 eye from tuberculosis, and he saved the remaining eye. Since 1904, hundreds of cases of ocular tuberculosis have been reported, and with favorable results in the vast majority of those cases where tuberculin had been used.

The diagnostic value of tuberculin depends on the reaction it produces when brought into contact with the living organisms, by dropping it on the mucous surface (Calmette method of dropping it on the conjunctiva), rubbing it on the skin, by vaccination into the skin, or by injecting it into or under the skin.

The Von Pirquet test consists in vaccinating the patient with old, undiluted tuberculin; the arm selected, after a cleansing with alcohol, receives a small scarification, just sufficient to have a little oozing but no bleeding; the tuberculin is then rubbed into that area and allowed to dry there. A second scarification, about 1 in. distant from the first, is made, simply as a control; the arm is protected by a light piece of sterile gauze, held in place by a strap of adhesive tape. In 24 to 48 hours, the reaction, if positive, is usually at its height.

Three degrees of reaction may be noted. (1) Mild, where the skin is reddened at the site of vaccination, and slightly infiltrated for a distance of 5 to 6 mm. round about. (2) Moderate, more redness and wider infiltration, and slight elevation of the skin; perhaps double the "mild" reaction. (3) Intense, where the redness and the infiltration extend to a considerable distance from the vaccination; accompanied at times with vesicles, and occasionally with enlargement of the neighboring lymph nodes; sometimes with a rise of temperature and a focal reaction in the eye.

DISCUSSION

Dr. Hyman I. Goldstein (Camden): Non-traumatic or spontaneous intra-ocular hemorrhage is an interesting topic, even for medical men (internists). May I call attention to such conditions as Goldstein's heredo-familial angiomas, with familial recurring hemorrhages; "Goldstein's Disease" or "Rendu-Osler-Weber's Disease"; Lindau's Disease, v. Hippel's syndrome, retinal angiomas, afibrinogenia (Opitz and Frei), hemogenia (Emile-Weil).

aleukia hemorrhagica (Frank, Mills), hereditary thrombasthenia (Glanzmann), familial thrombocytopenic purpura, hemophilia, pseudo-hemophilia, hemacelinosis (Rayer), other blood dyscrasias and deficiency diseases, and hypocalcemia—in any of which, intra-ocular hemorrhages may occur.

Particularly do I wish to call your attention to the occurrence of hemorrhages in heredo-familial angiomas. A number of instances of intra-ocular hemorrhage have been reported in this condition, associated, at times, with repeated attacks of epistaxis.

In January 1921 (Archives of Internal Medicine), I reported 11 persons in 1 family suffering from familial epistaxis and hemorrhagic telangiectasia. Since that date, I have met with several additional families—including a patient (a woman, aged 42 years), whom I saw at the Sinai Hospital, Baltimore, in March 1931, with Dr. Sussman, where 18 or 19 members of her family were affected.

Henry Eales (1882, 1891), Jonathan Hutchinson (1892, 1900), J. B. Story, of Dublin (1882), Nieden, Gräfe, Schweigger, and others have discussed the subject of recurrent idiopathic vitreous hemorrhages in young people, especially in young men at the age of puberty.

Eales, in his discussion of retinal hemorrhages in young men, stressed the interesting fact that all these patients were young men between 14 and 20, and all have been subject to *epistaxis*, and suffered from constipation. It is noteworthy that the fathers were, in 3 cases, found to have been very subject to *epistaxis* for many years when young.

A number of interesting cases are reported in Archives of Surgery (London), of 1892 and of 1900, by Hutchinson—in which vitreous and retinal hemorrhages were associated with *epistaxis* in the patients and in other members of their families. There is, perhaps, some hereditary influence, defect and weakness in the blood vessels, and endocrine disturbance in some of these patients. Obstinate constipation, masturbation, and vasomotor neurosis, may be factors.

I was much interested in Dr. Adams' report of his case, occurring in a young woman, probably suffering from some endocrine disturbance together with a vascular defect. There was cardiovascular disease in some members of her family. I would like to ask Dr. Adams if the blood-calcium, blood-platelet count, bleeding and clotting time, kidney function test, blood chemistry, and basal metabolism were done for his patient?

Dr. Thomas H. Johnson (New York City): The vitreous is so full of opacities that I could not see the retina clearly. As I understand Lindau's disease, it is a condition that is very likely to be familial. In Lindau's disease usually 2 large retinal vessels go down to a cyst-like development in the retina. Lindau's disease also may be complicated by an intracranial varix. The appearance of this patient suggests an endocrine disturbance, and she has the physical characteristic of a pituitary condition.

Dr. Pyle's case suggested to me a subarachnoid hemorrhage, such as come on suddenly after some slight exertion. The patient may or may not have a terrific headache, lose consciousness, have convulsions, and it is supposed to be pathognomonic if you find bloody spinal fluid; but if spinal tap is not done immediately the spinal fluid has a yellowish tinge, due probably to the breaking down of the red cells.

FUNCTIONAL DISTURBANCES OF THE HEART

H. R. LIVENGOD, M.D.,

Elizabeth, N. J.

The above title is meant to comprise disturbances of the heart and circulation where little or no organic lesion is demonstrable, or where the symptoms may be precursors of organic lesions to follow.

It is conceded that a careful history in any cardiac condition is the most important single item for arriving at a diagnosis. If the patient describes an oppressive pain in the left chest, about the region of the third or fourth rib, coming on after exertion, with a tendency to radiate to the left shoulder and arm, and relieved by rest and vasodilator remedies, the diagnosis of angina is made notwithstanding the physical findings and the electrocardiogram are negative.

People are perhaps more apprehensive of symptoms pertaining to the heart than of any other organ, and pain, palpitation, faintness, dizziness and dyspnea will cause them to seek medical advice sooner than other discomforts. It is the duty of the physician to ascertain the seriousness of the complaints and not to alarm the patient or make him a neurotic by speaking of a "leaky valve" or a "weak heart". Human nature needs encouragement and if we, as physicians, are not certain as to the existing condition, further observation, before diagnosis, is advisable. A short talk with the patient, in the way of explanation and reassurance, is essential and even if we think the condition requires rest and medication, we will thus get better coöperation. A mild nerve sedative is often the best medicine.

Disturbances of heart function may be said to be of extrinsic or intrinsic origin, although it is doubtful if any disturbance *has its origin* strictly within the heart, for even myocarditis and valvular disease are in reality of systemic origin.

It has long been known that the long chested, thin individual, with the vertical heart and ptosed abdominal organs, has a circulatory system easily disturbed and unable to adjust itself

to sudden changes. Draper has described this type of individual as the dolichomorphic or microsplanchnic type.

The type to which I wish to refer also has more or less parasympathetic unbalance, and may be said to have vagitonia. The impressions made by endocrine dysfunction, exclusive of the frank thyroid type, of which I will speak later, must be given consideration when occurring in the dolichomorphic individual. These patients have what is sometimes called neuro-circulatory asthenia. They complain of faintness on standing, palpitation, dizziness, weakness and gas, indigestion and constipation. The heart rate is *usually* fast, although it *may be slow*. The blood pressure is low. The heart is small and of the vertical type, and its sounds are of poor quality. In the functional test, the systolic pressure is lowered when patient is rising from the prone position, and the rate is accelerated above normal. Treatment, obviously, consists in trying to improve the patient's general condition; with rest, diet and drugs. Complete rest is often impossible but much can be accomplished by relaxation after meals and retiring early. The diet should consist of foods free from fiber, and with interval feedings of milk. Drugs may have to be given to relieve constipation, at first, but a small enema of warm physiologic salt solution is generally preferable. I prefer strychnine for its tonic effect, which may at times be advantageously combined with one or more organic derivatives. A mild sedative works wonders at times and my experience with phenobarbital has been very gratifying.

Abdominal conditions causing gas, such as gall-stones, may cause pain in the cardiac region, and also palpitation.

In hyperthyroidism the heart symptoms usually manifest themselves early; but I have rarely gained much information from the electrocardiogram in the early stages. It must be borne in mind that the cardiac condition is due to toxemia in these cases, and may result in a true myocarditis although for the most part is manifested through the nerves.

Focal infections may cause a toxemia which is revealed early by cardiac disturbance, and in which the underlying cause is not easily determined. Toxic conditions from alcohol,

tobacco and gastro-intestinal disturbances, often produce tachycardia and fibrillation, which, if not relieved, may result in cardiac failure. The dropped beats or extra systoles are often most annoying although of no serious importance. Pressure on the vagus, or on the eyeballs, may relieve the tachycardia. Quinidine appears at its best in this type of fibrillation.

Under the name of intrinsic functional disorders, I wish to call attention to some disturbances of cardiac function, which are concerned in the heart itself, or the nerves leading to the heart, but which reveal little or no detectable lesion. Often, patients with serious heart lesions show very few physical signs early in the disease. How often have we observed a patient with the now obsolete diagnosis of "pseudo-angina" gradually develop hypertrophy, elevated blood pressure, and general arteriosclerosis, and even then continue to live for a long time? How many of our hypertensive cases really have myocarditis, and how are we to judge that in the early stages?

It seems advisable to regard large hearts as evidence of myocarditis, even though we consider the hypertension as benign. Christian, of Boston, has published an excellent discourse (Jour. A. M. A., Aug. 25, 1928) under the title "Chronic Nonvalvular Heart Disease", describing, first, myocardial weakness (floppy hearts) with no enlargement; secondly, heart enlargements in patients over 40 years of age, with no other physical signs, but with myocardial weakness.

The dolichomorphic, previously described, may be placed in the first class; and in the second class a large number of individuals, who have enlarged hearts, and who complain of fatigue, dyspnea on exertion, and other circulatory disturbances. Christian points out that in the obese patient, the enlargement is difficult to determine, and the albuminuria and dropsy may be mistaken for Bright's disease, or the dyspnea and cough for asthma and bronchitis. A therapeutic digitalis test may be necessary. It has always been puzzling to me, to observe how quickly physical signs may change in heart conditions, and it is not uncommon in serious organic diseases to find changes in rhythm and murmurs at short intervals, and "just listening" gives no clue as to

the actual lesion. The one function of the heart is to pump blood, and it is remarkable how crippled it can become and still continue to function. Nerve supply from the sympathetic system stimulates when more blood is required for bodily needs, and the vagus slows down the supply. Without either, and with but its inherent qualities, it will still continue to beat. No wonder the ancients thought it the seat of the soul. We find that disturbance of cardiac function may be transient, with little or no harm done, and recovery become complete. The symptoms may include shock, arrhythmia, fainting, dizziness and palpitation. The same symptoms may be present in serious heart disease and lead to heart failure. No means of passing judgment on the condition of the heart and circulation should be omitted. The electrocardiograph and x-rays give most valuable information, which at times cannot be gained in any other way. Few general practitioners have ready access to these, and the expense to the patient must be taken into consideration. Every physician can do a functional test, and I wish to describe a test which requires only a stethoscope and sphygmomanometer, and which, in my opinion, gives more information than any other part of the examination.

The patient is placed in the prone position and, after a few minutes' rest, blood pressure and pulse are noted. Another reading is taken after a brief interval, and when those readings correspond, the pulse and blood pressures are taken with the patient standing arms to the side; normally, the pulse beat rises about 6-8 beats, and the systolic pressure about 4 to 5 mm. Hg. The patient is then asked to rapidly flex the knees and thighs 20 times, so that his fingers can touch the floor but keeping the trunk upright. Pulse and blood pressure readings are then taken at intervals of 2 minutes, with the patient standing, until the previous level is reached; which normally takes about 4 minutes. In myocardiac weakness the systolic pressure fails to reach its normal rise after the exercise, while the pulse rate is unduly accentuated. The return to normal is delayed. A very fair estimate of the amount of work done, expressed in foot-pounds, can be gained from the ascertained figures by a simple calculation.

SPONTANEOUS DISLOCATION

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Spontaneous, or pathologic, dislocation is a term intended to denote loss of apposition of articular surfaces by tear or destruction of the component structures of a joint, not congenital and not the result of trauma. That the occurrence of such nontraumatic acquired dislocations or subluxations is not infrequent becomes apparent from even a cursory survey of the literature. The writer's interest in the subject was aroused by the recent observation of 3 such cases, one of which will be described in detail. Most authors writing about the condition stress the youth of the patients in whom such spontaneous dislocations occur, and the frequency of their advent in the course of infectious or destructive disease processes. There is much controversy, however, concerning the degree of joint pathology necessary to produce such dislocation. Some writers contend that destruction of articular cartilage is a necessary prerequisite to spontaneous or pathologic dislocation; the majority, however, seem to believe that distension of the capsule, its partial destruction, plus relaxation or atonicity of surrounding muscles, are followed by almost passive dropping of the articular surface of a bone out of the joint cavity.

The older text-books make more frequent and more detailed mention of the condition under discussion than do the recent ones. Thus, Heine describes a number of cases of spontaneous dislocation of the hip, due apparently to tuberculosis. Cooper describes in detail: a case of "voluntary" dislocation in a youth; dislocation of the shoulder following "a fever", in a child of 12; dislocation of the patella, from relaxation of the ligaments, following long-standing synovitis with effusion; several cases of spontaneous dislocation of various joints due to paralysis. Malgaigne also dwells on the subject in detail, calls attention to the youth of the patients, and cites distension following infection, loss of muscle tonicity, and paralysis, as causes of spontaneous or pathol-

ogic dislocation. Degez reports a personally observed case of spontaneous dislocation of the hip, in the course of scarlet fever; and cites 80 cases, collected from the literature, of spontaneous dislocation of various joints occurring as sequels to typhoid fever, rheumatic fever, scarlet fever, smallpox, gonorrhea, influenza and erysipelas.

Of the more recent writers, Stimson gives the most detailed and explicit description of the condition. He quotes Volkmann's classification of spontaneous dislocation, according to the primary changes which precede and facilitate its occurrence: (1) by distension, (2) by destruction, and (3) by deformity. To these groups Stimson adds 2 more: (4) by abnormal growth, and (5) by paralysis or myopathy. Examples of group 1 are dislocations occurring after distension of a joint, with relaxation or destruction of the capsule, in the course of such infections as typhoid fever, rheumatic fever or scarlet fever; the hip joint is the most common site of this type of spontaneous dislocation. Examples of group 2 (dislocation by destruction) are tuberculosis, or late consequences of traumatic suppurative arthritis. Group 3 (by deformity) may be illustrated by *morbus coxae senilis*. Charcot joints, or Madelung's deformity. In group 4 (by abnormal growth) may be placed the cases of dislocation or subluxation following unequal growth of parallel bones, such as the radius and ulna or tibia and fibula. Group 5 (paralytic or myopathic) includes dislocations following anterior poliomyelitis, paralysis of Pott's disease, or loss of muscle tonicity from other causes.

Macewen states: "Distension of the joint, as from acute rheumatism, and paralysis of certain groups of muscles, leaving others unopposed, are . . . occasional causes." He also says that the hip is the joint most frequently involved in spontaneous dislocation, and mentions Charcot's disease as another example of causative factor.

Coudray defines pathologic dislocation as "displacement of articular surfaces produced, caused or facilitated by an abnormal state of the articulation". He traces the first mention of the condition to Hippocrates, then through Galen to medieval and modern times; and

quotes Koenig to the effect that pathologic dislocation complicates 35% of all cases of gonorrheal arthritis of the hip, and lists 23 cases of pathologic dislocation due to gonorrheal arthritis, as reported by various authors; of these, 20 were dislocations of the hip, 1 of the sternoclavicular articulation, 1 of the shoulder and 1 of the head of the radius.

Other recent authors—Cotton, Whitman, McWilliams, Campbell, Speed—mention the condition without going into details; apparently they all lay greater stress on congenital and traumatic dislocation than on the pathologic type. Some of the newer text-books, indeed, do not make any mention of the subject.

A review of the more recent literature yielded interesting instances of spontaneous dislocation. Le Fort reports 2 cases of dislocation of the hip following osteomyelitis of the head of the femur. Rocher and Magnant describe a pathologic dislocation of the hip in a child, following suppurative arthritis. Mackenzie cites a spontaneous dislocation of the shoulder in a woman of 50, of unknown cause, but where there was definitely no history of trauma. Seifert reports on 6 recent cases; of these, in 4 the dislocation followed osteomyelitis, in 1 tuberculosis with distension, and in the remaining patient the etiology was obscure but trauma played a decidedly minor rôle. Putti and Zanoli give a detailed report of 15 cases of spontaneous dislocation of the hip, the result of osteo-arthritis following osteomyelitis of the head of the femur, and discuss the surgical treatment of the condition. Nastrucci reports a dislocation of the hip occurring in a 16 year old boy, in the course of an infection with tetanus. Judet describes 4 cases in young children, which on cursory examination were first diagnosed as congenital dislocations, but on later investigation proved to be secondary to suppurative arthritis following osteomyelitis of the head, or head and neck, of the femur.

Hart, in an analysis of 28 cases of spontaneous dislocation of the hip, stated that this type of dislocation is more frequent than the traumatic, the congenital type ranking first. All patients in this series were under 17 years of age. In 16 cases the etiologic factor was represented by influenza, osteomyelitis, "discharging ear", empyema following pneumonia,

aspiration pneumonia following tonsillectomy, scarlet fever, acute rheumatic fever, suppurating axillary adenitis, and wound infection of the face—in this order of frequency; in 4 patients, dislocation followed anterior poliomyelitis, in 4 congenital cerebral paralysis with paraplegia; 2 patients had Still's disease (poly-articular arthritis), and 2 patients had tuberculosis.

Jean describes a spontaneous dislocation of the hip occurring in the course of *Bacillus coli* septicemia. Gill, in a study of 44 cases of pathologic dislocation of the hip, found 27 to have been due to tuberculosis, 10 to acute pyogenic and pneumonic infections, 5 to anterior poliomyelitis and 2 to encephalitis. Bazan and Viola reported a case of spontaneous dislocation of the hip occurring in the course of puerperal septicemia, while Pavlovsky and co-workers report 2 such cases. Roederer reports a number of cases of subluxation of the hip following local arthritis or paralysis. Hoyt reports 16 cases of pathologic dislocation of the hip, of which 3 followed osteomyelitis, the remaining being due variously to scarlet fever, measles, cervical adenitis, otitis media and pneumonia. Muller relates the case of a youth of 19 who, following infection from a finger prick, showed pyarthrosis of 1 knee and spontaneous dislocation of one hip. Berkheiser and Seidler have quite recently reported 5 cases of spontaneous dislocation of the atlanto-axial joint, following upper respiratory infections.

Of the cases seen by the writer, 1 was a dislocation of the hip occurring as the result of involvement of the head of the femur, among several other bones, in the course of hematogenous osteomyelitis in a child. Another (seen in the out-patient department of the Hospital for Joint Diseases in New York, service of Dr. H. Finkelstein) was in a woman of 30, who showed subluxations of the second, third and fourth metatarsophalangeal articulations, as the result of marked flattening of the metatarsal arch. The most recent case history follows.

Case history. Otto S., a 4 year old white boy, was admitted to the general surgical service March 15, 1931, suffering from severe and extensive burns following ignition of his clothes as he was playing around a bonfire. He

was treated, both locally and for the general septicemia, which soon supervened. His temperature reached 104.6° F. The burns covered the right side of the chest, flank, hip and leg. Clinically, there was respiratory embarrassment, but roentgenologically no pneumonic process could be demonstrated. April 8, there occurred a spontaneous opening in the region of the right hip, with copious purulent drainage; at the same time, it was noted that the right thigh was kept in an attitude of adduction and flexion, the knee resting on the opposite leg. X-ray pictures were taken and showed a typical posterior dislocation of the right hip. It was at this stage that the writer was called to see the patient, who looked extremely toxic; temperature oscillated between 99° in the morning, and 103° F. at night. In the region of the right hip, slightly above the greater trochanter, there was an opening about 1 cm. in diameter, discharging a thin, purulent material. The leg was held in the attitude previously described, the entire extremity being rotated inward. It proved extremely easy to reduce the dislocation; the patient did not seem to have suffered any pain at all, but the reduction could not be maintained—the head of the femur slipping out of the joint soon after reposition; this happened after repeated attempts. Application of traction was impossible on account of the poor condition of the skin, the extensive burn area, and the drainage. The leg was, therefore, placed between sandbags in the correct attitude and the nurses cautioned to watch for any recurrence of deformity. It was then seen that the skin wound communicated with the joint.

On April 19, there occurred an abscess formation in the region of the body of the left scapula, which was incised and drained. At the same time, there was evident involvement of the left ankle, with a spontaneous opening on the outer aspect discharging synovial fluid and thin pus. This opening was enlarged and another made over the bulging, internal, aspect of the joint. Blood cultures taken then, as well as those taken previously and on subsequent occasions, were negative. The patient had received 1 blood transfusion before; a series of transfusions of small quantities of blood (not over 250 c.c.) was instituted, at 3-day intervals. April 22, the right shoulder joint ap-

peared greatly distended and tensely fluctuating; the head of the humerus could be seen and felt anteriorly below the outer-third of the clavicle—a typical subcoracoid dislocation. The distended joint was incised, allowing the escape of thick, foul-smelling pus under considerable pressure, following which the head of the humerus could be readily replaced. That replacement was permanent, for there was no recurrence of the dislocation and, later, the patient had a practically complete range of active motion. April 24, a large abscess was found on the anterior aspect of the right thigh, longitudinal in shape, parallel to the long axis of the limb. This was incised and a large amount of pus similar to that obtained from previous incisions was obtained. Cultures of pus obtained from joint and other abscess cavities yielded *Bacillus coli*, *Bacillus subtilis* and streptococci of type not stated. April 29, another abscess was found on the inner aspect of the left thigh, near the groin, and incision yielded pus of the same type as that obtained previously. Numerous areas of skin necrosis had developed, aside from decubital ulceration; over the right hip there was extensive loss of skin covering so that practically the entire upper extremity of the femur was exposed; eventually the bone protruded through the opening. There was evident destruction of the left ankle joint. May 6, an abscess was found on the flexor surface of the left arm, upper-third, which was incised. Treatment, in addition to the blood transfusions, consisted in general stimulation, intravenous administration of glucose-saline, and local and intravenous treatment with a new preparation not yet on the market—chlorthymol (a soluble thymol compound)—kindly placed at our disposal by the manufacturers, for trial use in cases of septicemia. The patient's general condition grew steadily worse. Numerous areas of what looked like ecchymotic spots appeared all over the body, to be soon replaced by areas of necrosis. The patient died May 14, and necropsy was not obtained.

COMMENT

The antecedent septicemia and later appearance of the joint made it indisputably clear that the condition was one of spontaneous dislocation, due to destruction of the capsule fol-

lowing its distension by metastatic pus deposit. There was no history of previous limp, and the x-ray picture showed total absence of bone pathology or abnormality; so that, in the case of the hip, congenital dislocation could be readily ruled out. Furthermore, the best demonstration was obtained in the shoulder; where the process could practically be seen at work. The marked pressure under which the pus escaped on incision of the joint gave one an idea of the tremendous force exerted within the capsule. It could readily be seen that such force would cause destruction of the capsule at some point of lesser resistance and, if the force continued to act, extrusion of the head of the humerus through the capsular defect.

SUMMARY

Attention is called to the far from unusual occurrence of spontaneous or pathologic (non-traumatic, acquired) dislocation. Description of mechanism and clinical examples are quoted from standard old and newer text-books and the more recent literature. Three personally observed cases are cited, mention being made of 1 case of spontaneous dislocation of the hip and 1 of subluxation of metatarsophalangeal joints, while a detailed description is given of a case of spontaneous dislocation of the hip and shoulder in the course of general septicemia.

BANTI'S DISEASE, REPORT OF AN INTERESTING CASE*

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Banti's disease is insidious in its progress and often goes undetected until far advanced. Usually, the first stage is characterized by splenomegaly; the second stage by splenomegaly and secondary anemia, often associated with hematemesis; the third stage by splenomegaly associated with ascites. The blood picture throughout is usually that of secondary anemia, often associated with leukopenia.

The case reported here is interesting in that it illustrates: (1) that hematemesis may pre-

* (Presented at the Passaic County Medical Society meeting of September 10, 1931.)

cede a palpable splenomegaly and may thereby erroneously give rise to the diagnosis of gastric duodenal ulcer; (2) that once a diagnosis of Banti's disease is made, splenectomy offers the patient the best chance for a clinical cure; (3) that the platelet count may be low during the disease and may recover to normal quite rapidly, within a week, following splenectomy; (4) that the intraperitoneal use of sterile thromboplastin may be helpful in checking the profuse hemorrhage from vessels in the adhesions torn during splenectomy.

Abstract of case history: Late in May 1926, the patient, then aged 43, had 16 teeth removed. Three days later he had a gastric hemorrhage and vomited 1 qt. of blood. His physician found nothing, on physical examination. Roentgenograms were negative. R.B.C., 1,190,000; W.B.C., 5200; Hb. 48%. A diagnosis of esophageal varices was made, the patient placed on a soft diet, and the use of iron-cacodylate hypodermically was advised.

Six weeks later the patient had another gastric hemorrhage when, so he states, he vomited 1 gal. of blood. He was sent to a local hospital where he was kept at rest in bed for several weeks, with a soft diet, and was subsequently discharged as improved, with a diagnosis of varicose veins of the esophagus. On admission, July 23, 1926, the blood picture was R.B.C., 2,850,000; W.B.C., 4200; Hb. 45%; platelets, slightly increased. After leaving the hospital the patient received 1 ampoule of iron-cacodylate daily, for 45 days, hypodermically. The blood picture on September 1, 1926, was R.B.C., 4,030,000; W.B.C., 4600; Hb. 65%; platelets normal.

Two years later, in February 1928, the patient had his third severe gastric hemorrhage and was admitted to the same local hospital as before on February 13, 1928. On February 24, 1928, the blood picture was R.B.C., 4,510,000; W.B.C., 7400; Hb. 80%. An x-ray diagnosis of duodenal ulcer was made, based on "a persistent pyloric patency with tenderness over the duodenum". A laparotomy was performed 2 days later. The surgeon reported that no ulcer was present. There was, however, "a small, hard, cirrhotic liver, and a spleen, with white flecks on it, enlarged to 3 times normal size". Nothing was done. The

abdomen was closed and the patient discharged, improved, March 13, 1928. The hospital records show a final, postoperative diagnosis of Banti's disease.

A fourth gastric hemorrhage occurred in August 1928; a fifth in November 1928; a sixth in July 1929; a seventh in November 1929.

An eighth gastric hemorrhage occurred May 11, 1930. He was admitted to the same hospital for the third time and a diagnosis of Banti's disease again made. He was given a blood transfusion, put on a Sippey diet plus liver juice, and was discharged, improved, June 11, 1930. The admission blood count, May 12, was R.B.C., 2,660,000; W.B.C., 8400; Hb. 45%. On discharge it was R.B.C., 2,870,000; W.B.C., 5800; Hb. 45%.

A ninth gastric hemorrhage occurred July 9, 1930. I was called in at that time, made a diagnosis of *splenic anemia*, and advised splenectomy. The next day, July 10, 1930, I performed that operation, following immediately with a transfusion of 400 c.c. of blood. During the operation, the patient had his tenth gastric hemorrhage and was given 1000 c.c. of normal saline intravenously. White flecks on the spleen, probably miniature splenic infarcts, were noted; the organ was about 3 times normal size. The liver was of the Laennec type, hard and cirrhotic, but not enlarged. The intraperitoneal hemorrhage from torn adhesions was controlled with hot packs, and 10 c.c. of sterile thromboplastin was injected over the splenic bed. Some of the postoperative measures consisted of the daily injection of 20 c.c. of thromboplastin hypodermically; administration of 20 c.c. of thromboplastin diluted in 200 c.c. water, twice daily *per os*; and he also received calcium lactate, 15 gr. every 6 hours by mouth. There were no further gastric hemorrhages, but melena persisted for 5 days after the operation and it was not until this symptom cleared up that the above doses of thromboplastin and calcium were discontinued. One annoying symptom worth mentioning, was the occurrence of severe bregmatic headaches each night for several weeks. As time wore on, those headaches diminished in severity and finally disappeared altogether. The patient was

discharged 18 days postoperatively, improved. July 27, 1930.

The pathologist reported the spleen as being 3 times normal size, with gross and microscopic markings—"those of a spleen as we find it in Banti's disease".

A chart is appended. It shows the various blood counts from June 8, 1926, to September 8, 1931. The patient had, fortunately, saved most of them.

It is now more than 14 months since the patient's spleen was removed. He has had no gastric hemorrhages; hemoglobin has risen from 41% to 75%; weight has increased from 130 lb. to 170 lb.; has resumed his usual occupation, as manager of a chain store; and, to all appearances, he seems entirely well.

Comment: A review of the literature reveals a striking unanimity of opinion, to the effect that splenectomy clinically cures Banti's disease. The earlier splenectomy is done, the less hazardous is the operation. Splenectomy, when done in the first or second stage of the disease, carries a mortality of 10-15%. When, in the third stage, splenomegaly, cirrhosis of the liver, and ascites are marked, the mortality rises to 25-50%. But, even in the late stages, splenectomy, sometimes associated with omentopexy, offers hope for cure.

Splenectomy is not contraindicated in the presence of a low hemoglobin. In the case herein reported the pre-operative hemoglobin was 41%; it being recalled that gastric and intraperitoneal hemorrhages occurred during the

operation. Poole tells of a patient with Banti's disease upon whom he performed a splenectomy in the presence of a 10% hemoglobin. At the time of the report, 8 years postoperatively, the patient, a woman, was alive and well.

Attention is invited to the intraperitoneal instillation of sterile thromboplastin, in an effort to control the profuse hemorrhage from torn, aberrant veins coursing through the splenic adhesions. The thromboplastin seemed to help in this instance. I do not know whether use of the thromboplastin for 5 days following the operation was responsible for the increase in the platelet count from 90,000 to more than 200,000 within a week; it is possible that mere removal of the spleen was responsible for this phenomenon, just as the same thing occurs, only much more rapidly, when the spleen is removed in purpura hemorrhagica. Perhaps it was a combination of both.

Finally, it seems pertinent to keep in mind the possible presence of Banti's disease when one is confronted with a patient whose dominant symptom is *hematemesis*. In this case, the hematemesis seemed to precede a palpable spleen. The x-ray picture was negative on one occasion; and on another occasion led the roentgenologist to the erroneous diagnosis of duodenal ulcer. The blood picture, when one scans the appended chart, attracts attention to the consistent presence of secondary anemia associated with leukopenia; a type of anemia which is characteristic of Banti's disease.

Summary: (1) An interesting case of Ban-

BLOOD PICTURE IN BANTI'S DISEASE

Date	Hb. %	R.B.C. (millions)	W.B.C.	Platelets	Remarks
6/8/26	48	1.19	5200	Slightly increased. Normal	First hospital visit. Pt. had received Fe. and As., hypod. Before first operation. Exploratory only. Third hospital admission. Pt. transfused.
7/23/26	45	2.85	4200		
9/1/26	65	4.03	4600		
2/24/28	80	4.51	7400		
5/12/30	45	2.66	8400	90,000	Fourth hospital admission. Day before splenectomy. Day after splenectomy. The extreme white count is usual after any splenectomy.
5/20/30	55	2.24	6000		
5/31/30	45	2.87	5800		
7/9/30	42	2.65	5900		
7/11/30	41	2.34	26,800	138,160	Wassermann tests, all negative. One report read "slightly anticomplementary".
7/18/30	43	2.45	9900	200,900	
7/23/30	43		8400		
9/10/30	50	4.00			
10/15/30	60	3.90			
9/8/31	75				

ti's disease in a man of 47, successfully treated by splenectomy.

(2) Hematemesis was the outstanding clinical symptom; 10 gastric hemorrhages in a little more than 4 years.

(3) Splenectomy seems to offer a permanent cure. Rest, soft diet, iron and arsenic seem to be of no avail.

(4) Sterile thromboplastin, instilled intraperitoneally, may check hemorrhage during splenectomy.

(5) Authoritative bibliographic references will be furnished on request.

FOOD POISONING; REPORT OF 40 CASES*

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Food infections, or food poisonings, are less common today than they were 20 years ago, because of improvement in the methods of canning, and of rigid inspection. However, isolated cases come occasionally to the attention of physicians and are treated as gastroenteritis. More often, the occasional case goes undiagnosed and the afflicted person recovers without medical aid. It is usually only in institutions, such as the Army or Navy, where large numbers are fed and affected, that sufficient interest is aroused to cause investigation and correlation of data. There was a careful investigation of clinical, chemical and bacteriologic factors involved in this food infection affecting some 40 nurses and employees of the hospital in April 1930.

Most of the persons stricken manifested symptoms 5-6 hours after the food was eaten, and the food causing the trouble was probably cod-fish cakes made by mixing canned cod-fish with freshly boiled potatoes, and frying in butter. All those affected had eaten the fish cakes; none eating only other food served at the same meal was affected. The severity of the

symptoms depended upon the amount of food eaten.

The first symptoms were severe pain in the abdomen and vomiting. The vomitus at first was simply the contents of the stomach; later, bile-stained mucus. Shortly after the severe colicky pains, diarrhea commenced; the movements being large, watery in consistency, greenish in color, containing no blood, and producing very little tenesmus. The remittent fever rose early, in some cases reaching 105° F., but in most cases ranging from 101° to 104° F. This lasted from 3 to 5 days, with a decline by lysis and with a gradual subsidence of all symptoms. The pulse rose with, and at all times remained in relation to, the fever. There were no signs referable to the chest; no abnormal cardiac signs; the spleen could not be palpated in any case; and there was no delirium, even in those showing marked pyrexia.

The urine in most cases contained a trace of acetone and albumin but no casts. The leukocyte counts varied from 5000 to 8000 and the polynuclears varied from 68 to 89%. Blood cultures showed no growth.

All patients recovered. There were no complications nor sequels. In 1 case the fever was protracted; lasting into the third week.

It was not possible to examine any of the food eaten nor the cans from which the fish had been removed. Chemical and bacteriologic examinations of several cans of fish purchased at the same time were made, but no preformed toxins nor organisms were isolated.

Chemical examination of the feces, vomitus and urine, from 10 of the patients, showed no evidence of chemical poisoning. Extensive bacteriologic studies were made of the urine and feces of the severest cases, and tabulated. All the feces cultured showed growth of the same organism, which was a motile bacillus, staining readily with the usual aniline dyes and decolorizing by Gram's method. The organism grew rapidly on all media at room and incubator (37.5° C.) temperature. The growth on endo-medium was pearly white, assuming a pinkish tinge after several days. On Russell's double sugar medium, there was an uncolored surface growth, and acid and gas in the butt. In dextrose and maltose broth, the bacillus formed acid and gas; while in lactose and sac-

* (From the laboratory of the Presbyterian Hospital in Newark, N. J.)

charose, it formed neither. In litmus milk, there was a slight initial reddening which, after 2 days, was decidedly alkaline. The bacillus

typhoid "B" serum in dilutions up to 1:8000. There was no agglutination by the specific typhoid and paratyphoid "A" serums. There

NUMBER	ENDOS	RUSSELL'S DOUBLE SUGAR	DEXTROSE	LACTOSE	SUCROSE	MALTOSE	LEAD ACETATE	LITMUS MILK	WIDAL DIL. 1-160	WIDAL UNKNOWN DIL. 1-160	SERUM DIL. 1-8000
		SLANT BUTT					STAB	COAG. TYPH. PARA A PARA B			TYPH. PARA A PARA B
1	S	- *	*	-	-	*	B	- - - /	/	- - - /	
2	S	- *	*	-	-	*	B	- - - /	/	- - - /	
3	S	- *	*	-	-	*	B	-			
4	S	- *	*	-	-	*	B	- - - /	/	- - - /	
5	S	- *	*	-	-	*	B	-			
6	S	- *	*	-	-	*	B	- - - /	/	- - - /	
7	S	- *	*	-	-	*	B	- - - /	/	- - - /	
8	S	- *	*	-	-	*	B	-			
9	S	- *	*	-	-	*	B	- - - /	/	- - - /	
10	S	- *	*	-	-	*	B	-			
11	S	- *	*	-	-	*	B	- - - /	/	- - - /	
12	S	- *	*	-	-	*	B	-			
13	S	- *	*	-	-	*	B	- ² / - /	/	- - - /	
14	S	- *	*	-	-	*	B	-			

* Acid, Gas

- Negative. No change

S Suspicious, whitish colonies

B Black

/ Positive agglutination

²/ Had typhoid vaccine

caused blackening of the stab of lead acetate agar.

The bacillus, after 2 weeks growth on artificial media, was agglutinated by specific para

was also agglutination of the various strains isolated by the blood serums of all patients examined. Blood serum of the patients also agglutinated the stock paratyphoid "B" bacilli.

in dilutions up to 1:160. There was no agglutination between the patients' serums and the stock typhoid and paratyphoid "A" bacilli; except in 1 case and that patient had been given typhoid immunizing serum.

From observation of the morphologic cultural and serologic characteristics, this organism should be classified in the intermediate group, between the colon and typhoid groups; in the paratyphoid enteritis group; and is identical with *Bacillus paratyphosus* B.

We wish to thank Dr. Charles E. Teeter for his collaboration in the clinical examinations; and Mr. Cecil H. Gowan for his help in the bacteriologic examinations.

Conclusions: About 40 persons ate cod-fish balls made from canned cod-fish and simultaneously, from 5 to 6 hours later, developed similar symptoms. The course was: severe abdominal pains, vomiting, diarrhea, remittent fever and rise in pulse rate; and recovery of an identical organism from all feces. The organism was a Gram-negative, motile bacillus very closely resembling *Bacillus paratyphosus* B., culturally and serologically.

USE OF INSULIN IN TUBERCULOSIS (Preliminary Communication)

FREDERICK M. ALLEN, M.D.,
Physiatric Institute,
Morristown, N. J.

A series of writers since 1925 have reported striking results from "fattening cures" with small or moderate insulin dosage, over periods of a few weeks in non-diabetic tuberculous patients. Fully as many have described contraindications and injurious effects. Falta and other leading workers with the method agree that insulin treatment should not be attempted in febrile or progressive cases but should be confined to the very mild or quiescent types; and even in these types regarded as most favorable they have never followed up their first brief observations with publication of anything to show that the ultimate outcome has been improved. The treatment has not been adopted generally by tuberculosis specialists,

and since 1928 fewer articles about it have appeared. Metz (*Jour. A. M. A.*, 1931, 96:1456-1460) considers that by it "even latent tuberculosis may be activated". Theoretic reasoning seems to support this judgment of the method as used heretofore.

I was, apparently, the first (1922) to report on the use of insulin for tuberculosis with diabetes, and since then I have constantly had some such patients under treatment. Previously, I had developed the theory that the internal pancreatic function is concerned with the total metabolism and maintenance of body weight. This theory, which has been conclusively demonstrated in diabetic therapy, seems applicable also to the treatment of another emaciating disease; namely, tuberculosis.

Insulin, as an assimilative or anabolic hormone, evidently plays a part in resistance to infection. Animal experiments have indicated that the body can be artificially enriched with insulin. The results in tuberculous diabetic patients have apparently been improved by a plan involving a very large increase of insulin dosage. In the application of this method to non-diabetic tuberculosis patients, a simple clinical procedure has been devised for administering large dosage, up to 200-300 units per day, without disturbance and without need for any prodigious quantities of carbohydrate. Later maintenance dosage is lower than that during active treatment. Observations in progress are expected to decide whether there is a general superiority of higher or lower dosage, or whether the management is best individualized as at present.

Certain patients selected by leading tuberculosis specialists in New York have been thus treated in the Physiatric Institute. This work was mentioned at a meeting of the Cambria County Medical Society, at Johnstown, Pennsylvania, on March 10, 1932, and the first detailed presentations of results will be at the meetings of the Clinical Society of the Polyclinic Hospital, New York City, on April 4, 1932; and of the Passaic County Medical Society, at Paterson, New Jersey, on April 14, 1932.

The greatest difficulties are encountered in patients with the greatest fever and intoxication, partly because they can endure the least

of both insulin and food, and partly because of the inherently grave condition. Though a slight gain in weight has always been attainable, thus far, the impression is that gain of strength is the important primary accomplishment, and that an attempt at any large increase of weight should be deferred until the fever has been reduced by customary measures. In such cases, obviously, many factors will govern the end-results.

In the less toxic individuals, able to tolerate the full insulin dosage, it has been possible to build up weight (seemingly muscle as well as fat) at rates as high as 1 lb. a day. Thus, emaciated patients with active and advanced tuberculosis, with cough and strongly positive sputum, extensive cavitation, artificial pneumothorax, thoracoplasty, or intestinal lesions, have readily been raised to a weight slightly above their best weight in health. There is no immediate effect upon the specific condition or symptoms, except that the strength and spirits improve materially, night sweats may cease abruptly, and at least no harm is seen from either the gain of weight of the high insulin dosage. Though there may be hope of improved ultimate results through a changed character of the soil on which the infection develops, the strongest warning should be given that this is only a hope and no quick or magic cure is possible.

Though these results may appear similar to those described in the literature, except that they are obtained in patients with advanced and active conditions for whom most writers have considered insulin to be contraindicated, both the method and the theory represent radical in-

novations. Aside from the higher dosage, the plan contemplates continuing insulin indefinitely. Stopping it after a brief "fattening cure" seems to be wrong and perhaps harmful from the nutritive standpoint alone. But in addition to the benefit of using insulin as a means of increasing the diet and weight, still more may perhaps be accomplished through the idea of diet as a basis for enriching the body with insulin. Therefore, when the optimum weight has been reached, the diet is modified so as to prevent further gain of tissue but still to permit liberal dosage of the hormone which upbuilds and maintains tissue and which therefore, theoretically, should aid in resistance to the infection. It is thus permissible to hope for some distinct improvement in the final results, without being misled by the spectacular initial nutritive gains or losing sight of the fact that insulin is not an antibody and the long hard struggle against tuberculosis still lies ahead, requiring every useful device of the established treatment in addition to this new one.

Though the method, if valid, is applicable to all stages of tuberculosis and presumably the ultimate results will be best in the earlier and milder cases, it is desired at this time to use it chiefly in conditions which otherwise offer little or no hope. Thorough institutional control is one requisite. The literature is probably a sufficient warning against risking either small or large dosage of a powerful hormone without adequate experience and facilities. Obviously, many failures and fatalities are to be expected in the desperate cases, and only years of experience with various types can decide whether the treatment adds a step toward the real conquest of tuberculosis.

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DISCOVERY OF THE TUBERCLE BACILLUS

(An Editorial contributed by our President,
Dr. John F. Hagerty)

The last half of the Nineteenth Century has been justly celebrated as the period of most marvelous activity in the field of science, and in adaptation of the knowledge then gained to the arts and industries. None the less striking, however, were the activities in medical research during that same period, the consequences of which have been even more wonderful and far-reaching than any of the remarkable inventions. The recent celebration of Robert Koch's discovery of the tubercle bacillus—50 years ago—serves to remind us of the *moderness* of our knowledge of scientific medicine; and of the fact that it was only a few years prior to Koch's discovery, that Pasteur had conclusively proved the fallacy of the previously held belief in *spontaneous generation*. Pasteur had shown that only life could produce life, and had demonstrated the causal relation of bacteria to many diseases. Lister's experiments, following close upon Pasteur's work, had served to establish the truths of bacteriology, of which Keen, who has had the unique experience of witnessing the entire period of its birth and development, says: "It is the most wonderful discovery ever made in any department of medicine for upon its revelations depend most of the progress in modern medicine, surgery and obstetrics, while it is also the foundation of modern sanitary science."

With the practical value of Koch's discovery, as shown in the remarkable reduction in the

tuberculosis death rate, and the great saving in money and in man power, and also of the misery and suffering not only by the victims of that disease but also by those dependent on them, all are familiar. Every physician—though his be only a few years of experience—can testify to the beneficent influences of this discovery. In the world of science, the investigation was so thorough and conclusive that it was regarded as the greatest ever made in the field of bacteriology.

But, the chief value of Koch's work lay in formulating principles by which one might determine with certainty that a definite organism was the actual cause of a certain disease. These led very shortly to the discovery of the cause of malarial fever, cholera, sleeping sickness, and many tropical diseases. Not the least interesting among the results of this truly remarkable work, have been the developments in modern medicine and sanitation and their effects upon the practice of medicine; for, as soon as the cause of a disease, and its mode of transmission, became known, interest was created in finding a method of prevention as well as of cure, and, as evidence of the true scientific spirit of the profession, it can be said that each new discovery was received with genuine pride and joy, notwithstanding that the field of medical endeavor was thus becoming more and more circumscribed and the revenues of the medical practitioner correspondingly curtailed. In addition, the knowledge thus obtained has led to the establishment of other agencies whose particular concern has been the dissemination of such knowledge and the enforcement of measures leading to the

prevention of infection. In this way, came recognition of *sanitary science* as the hand-maid of medicine, and the formation of Boards of Health, with all of the subdivisions necessary for the practical application of these principles.

It is to these organizations that we are indebted for the supervision and control of all those matters which are of vital concern to the health and happiness of the people—such as pure food, water and milk, properly constructed houses, with provision for garbage and sewerage disposal—all of which have lessened the incidence of disease and added materially to the average duration of life and the satisfactions of living. And thus, upon the pioneer work of Pasteur, Lister and Koch, has been erected the splendid edifice of *modern medicine*, carrying on its noble missions, and worthy of Garrison's tribute in his History of Medicine: "The highest function of the physician is still the relief of human suffering while the aim of modern medicine, coördinate with the advancement of all sciences, is the prevention, as inclusive of the cure, of disease."

HISTORY IN THE MAKING

Practically every intelligent human being has an interest in *history*—in the sense of a record of past events—realizes its value and recognizes the importance of making and preserving an intelligible and accurate record of passing events, because *such records* will some day be recorded *history*. Most such human beings will also, upon occasion, blithely quote Shakespeare or some other historic writer to the effect that all the world's a stage and living is but our brief appearance upon that stage, as actors, to play our little parts and then retire, with only a few, if any, of us receiving anything even remotely resembling a curtain call; and yet, how few really appreciate those statements as facts, and give any serious thought to our daily actions, daily contributions to what—in toto—becomes the personal and the community history? It seems that some *dramatic event* or some *necessity* is required, to fix our attention upon the importance of daily, routine happenings; and not until some such event or need arises, do we take note of the fact that even in small, almost insignificant, matters we are daily

and hourly contributing to the *making of history*.

The Editor experienced the dramatic awakening, as did many other physicians who receive this Journal, in the early months of 1918, when, after a winter in training camp learning how to play the part of a soldier, and through those long spring days filled with work and overloaded with anxiety and suspense, with hope and fear, "the hour struck"—struck with an unexpected and a surprising suddenness—and the unseen hand of Fate and the mysterious voice of Destiny, both impersonated by the Commanding Officer, reached out to touch us and to say: "YOU, are called! This is the hour for which you have been preparing; the hour for which you have waited. Go forth to serve your Country; to play your part manfully; and may you do your bit in the glorious history of this country."

Some of us then, possibly for the first time, realized that we were, really, participating in the making of history; and that gave us a new interest, and a new pride, in the performance of military duty.

The Editor has, recently, experienced also that *necessity* referred to as requiring recognition of the history-making value of daily routine actions. We were discussing the "History of Medicine in New Jersey"—which is now in the process of being written—with the historian, when, in response to a question, she said: "I would like very much to make a plea for that future historian who will be carrying on some day long after I am dead." "Why?" we asked. "Because", she said, "the one fact which has most strongly impressed me, while doing this work, is *the value and the scarcity* of complete and accurate records." We encouraged her to tell her story to the members of this Society, and the following editorial is of her writing.

YOU ARE MAKING HISTORY TODAY

(An Editorial contributed, upon invitation of the Editor, by the Historian who is writing the History of Medicine in New Jersey.)

This is my plea for some future historian, who will carry on when I am long since dead.

For the period from 1800 to 1900, there are 3 outstanding sources of information—the

Transactions of the Medical Society of New Jersey, the Minute Books of the County Societies, and the Proceedings of the State Legislature. Each of these sources has proved, in my search for information, disappointingly incomplete. The legislative minutes preserved no clue to the person or persons who presented petitions which led to enactment of some epochal laws. The Transactions frequently left unrecorded the names of persons offering important resolutions—to say nothing of their failure to preserve valuable reports and papers. Had the County Society records been complete, these deplorable gaps could often have been filled in. As it is, we have struggled through hundreds of pages of hand-written accounts of the places where a society met, who were present, what kind of a banquet was served, and at what hour the meeting adjourned; interspersed with an occasional tantalizing reference to the fact that—"An interesting paper was read on this subject"—or—"An interesting discussion was indulged in upon that subject." Reading such records, we have sometimes sighed—"If only that Secretary—or somebody—had realized that *history was being made!*"

As an illustration, let us take an example in which the record *was* properly kept: At a Burlington County Medical Society meeting in 1849, Dr. John Evans offered a resolution that the society should investigate the matter of sanitary laws in the state. At the time, there was little conception of public sanitation, so who could have foreseen that this resolution was really the planting of a seed which was to grow into the innumerable boards of health, disease prevention campaigns, child welfare bureaus, and other ramifications of our present state sanitary system? Who could have foreseen that a future historian would trace, through a period of *30 years*, the development of this little resolution into the offering of a similar resolution, before the State Society, leading to appointment there of a Sanitary Committee; then, in turn, leading to appointment, by the Governor, of a State Sanitary Commission; and, culminating in a State Board of Health? Long before this culmination was reached, Dr. Evans had died, and other men had taken his place as leaders of that sanitary

movement; but, because 1 County Society Secretary was careful enough to record a matter, which filled only 4 lines of his "minute book", we can today give Dr. Evans and his County Society credit for starting this particular ball rolling on its important course.

Suppose that particular Secretary had not been so pains-taking? Many County Society Secretaries *were not*. Often, the first report of a movement appeared in the Annual Transactions of the State Society; and, while the chances are that *it started* in a County Society, how can credit be given—at the source—if the minutes are incomplete or lost?

The same reasoning applies to legislative matters, where, again, *complete county society records* would often have given the clue to the person responsible for the passage of, or the effort to secure the passage of, some important laws. To take, as an example here, a case where the record was *not* properly kept—one which the historian has just encountered—so that her disappointment is at the moment acute: A bill to create a Hudson County Board of Health was presented to the Legislature even before we had a State Board of Health. We surmise that the Hudson County physicians promoted this move, because we know that a medical society existed there at the time, and that some of its members were prominent in the profession. But, the Legislature had, naturally, no interest in preserving the names of petitioners for a board which it refused to sanction and the Hudson County Society minutes for that period cannot now be found; so, the historian faces a blank wall.

It is too late for the progressive physicians who sponsored this, and a host of other such movements, to complete those records—for those men died, long since. It is not, however, too late for the progressive physicians, and the progressive county societies, of today, to make sure that their own society minutes are always satisfactory. For the historian has not meant to suggest, by what is said above, that only county society secretaries were at fault in the past. To her mind, *each member* was as accountable for imperfect or lost records and papers as were the individual secretaries. Each member could have ascertained whether his county society secretary was chosen from

the ranks of members known to feel a sense of responsibility and to have time and facilities for keeping records. When the minutes of previous meetings were read, each member could have taken care that they were altered, if necessary, until they became accurate. When a Secretary moved on to a different office, or died, each member could have made sure that minute books, notes and papers, were immediately transferred to the possession of another trustworthy member, rather than permitted, as probably happened many times, to molder in some attic until a future generation, which had lost, possibly, its connection with the profession, destroyed them in the course of house-cleaning or moving.

The medical profession in New Jersey is making history today. We hope that all its members are helping the historian of a century hence by seeing to it that complete records are made and preserved, so that movements may be traced back to their sources, and credit given where credit is due.

ANNUAL MEETING OF 1932

Each year, at about this time, we call attention to the preparations made for the Annual Meeting of the Medical Society of New Jersey, announce that an excellent scientific program has been arranged, and urge all members to plan their personal affairs and professional engagements so that attendance at the convention will be assured. There are very few members who cannot attend such annual gatherings with their colleagues—if they really desire to do so—provided they give thought to the matter at a time sufficiently in advance of the meeting date.

The program planned for this year's convention—which is scheduled for June 15, 16, 17—is fully up to the Society's established standard, and possibly is in advance thereof. A great deal of hard work has gone into the task of securing good speakers to present accounts and discussions of recent advances in medical science, and of making the entire program so attractive that no member can resist its drawing power. To us, the preliminary arrangements for the 166th Annual Meeting seem irresistible, but the effect upon you cannot be estimated until after publication of the

May Journal—a portion of which will be devoted to presentation of the Preliminary Program and the Presessional Reports of Officers and Committees.

Begin now to plan your own attendance; and, do not forget that the Woman's Auxiliary will be meeting at the same time, and as your wife has an interest in that, it is just as well—and will be a wise move on your part—to engage accommodations for the whole family at Haddon Hall, Atlantic City. The House of Delegates occupies all of Wednesday, June 15; the General and Section scientific sessions and the Auxiliary, all of Thursday and Friday; then, with Saturday and Sunday for rest and recreation at the "World's Play Ground", you will be enabled to return to duty refreshed, re-invigorated, and with an additional store of knowledge.

HUMAN—LIKE THE REST OF US!

For several days in advance of the event, New York papers had been proclaiming, under "display" head-lines, the strange news that the great financier, head of the banking house of Morgan, was to aid in launching a new type of charity campaign, and would, on March 23, deliver his *first radio speech*. Considering his position in the world of finance; likewise in the social world, with private homes in New York, London and Paris; and, the number, magnitude, and distribution of his varied business interests; *one would* think it odd that he had not as yet—either acting under compulsion or of his own volition—experienced the "thrill" of broadcasting. And, it does give one—not merely a thrill, but—quite a number and quite a variety of sensations. The Editor can still recall his own first experience; approximately 7 years ago, when he spoke from Station WHAR in the Seaside Hotel, Atlantic City, inaugurating this Society's program of Public Education in Medical Matters. A room on the street level had been dedicated, and especially reconstructed, for the purpose; its walls had been rendered "sound proof", for one thing. He had been instructed how to act, and how not to act; that he must guard against the production of any other noise than that of his own mouth—and that certain precautionary rules applied

even to his mouth—for the seemingly slight sound resulting from the turning of a sheet of manuscript may, through amplification of the sending apparatus, reach the listening ear as a loud noise.

One takes his position, facing the microphone, which has been adjusted to the proper level, and watches for the light signal, or listens for the concluding word of the announcer introducing the victim, and then proceeds to deliver his message to an anxiously waiting public. Does he? Oh! That is, possibly, the first disturbing thought. Really, is anybody listening? Has he an audience, and if "yes", how large; are millions hanging on his words, or is there only some one, benighted, house-confined—maybe, bedridden invalid—hoping for some consoling word, if this be a physician speaking. Anyhow, it's *frightfully quiet*—and he raises his eyes from the manuscript to steal a glance around the room—only to discover that he is *absolutely alone*, and there is no sound save that of his own voice; and he wonders if that is not *too* loud; but why worry about that, when more than likely such radio fans as by chance had been tuned in upon this station earlier, have long since rolled along to a jazz period of some other station.

And when it is over, he feels and acts much as did Mr. Morgan, according to the clipping from the New York Evening Sun of March 24: "Mr. Morgan delivered his broadcast from his home. He sat at his desk, a fire crackling in the fireplace."—News item. Thus in his first radio talk, Mr. Morgan realized the Broadcaster's Dream.

The distinguished financier was calm and cool during his radio talk, according to all accounts, but anybody who has ever faced a mike will bet that for once in his life he was all a-flutter inside and that his first question to members of the household was: "Well, was I any good?"

LAY CONTROL IN HOSPITAL MANAGEMENT

In the January Journal, pages 89 to 91, we published the report of a special meeting of the Essex County Medical Society held December 11, 1931, to deal with an embarrassing

situation growing out of an arbitrary and unreasonable action by the lay Board of Directors of the Hospital and Home for Crippled Children, of Newark; and so serious as to be considered a gratuitous affront to the entire Medical Staff of that institution. The complete story is in your hands, as above indicated, but we may be permitted to say here, briefly, that the trouble originated in the Board of Directors having supplanted the Medical Director of the Hospital (who had served the institution for 32 years, without pay, and who was at that moment ill in another hospital) by 2 physicians brought in from New York (incidentally, at a salary expenditure of \$7500) and appointed without any consultation with the Medical Staff, which body, numbering 32 members, filed a protest—after its request for a hearing and a discussion of hospital affairs had been rejected.

When, later, the Board persisted in its course of action, and in its refusal to confer, and had accepted the joint resignation of all members of the Medical Staff, the matter was reported to the County Society, and that organization not only put its stamp of approval upon the Staff's action but adopted a series of resolutions which may well serve as a model for establishing, and interpreting, the proper relationship between hospital staffs and hospital governing bodies.

At a meeting of the Welfare Committee of the State Society, on March 6, the President of the Medical Society of New Jersey, Dr. John F. Hagerty, himself a member of the Medical Staff of the Hospital and Home for Crippled Children, in Newark, referred to above, directed attention to the report and resolutions published in the Journal as Proceedings of the Essex County Medical Society. Whereupon, the Welfare Committee gave its approval and endorsement to the actions taken by the Staff and the County Society.

The Editor suggests that each member of the State Society, at least those holding an appointment in any medical institution that is governed by a Board of Directors, or Trustees, composed entirely or in major part of laymen, should read this report carefully.

Medical Ethics

REGRETS

John Hammond Bradshaw, M.D., F.A.C.S.,
Orange, New Jersey

"Many a man, many a woman, has had a good round half dozen years, or even more, clipped from his or her life in moping, in vain and absolutely foolish regrets, for this or that occurrence, or series of occurrences, in the past, thereby blocking initiative and neutralizing powers that, rightly used, would have led speedily to actualizing the attainment of the conditions desired."

One of the lessons of life most desirable for a physician to learn is how to thicken his hide. He should not let it be *too sensitive*. Doing this, will surely prolong his days and will also increase his happiness. A conscience is a good thing; but it must be mixed with brains. To go to the other extreme, is just as bad. If your conscience is worked over-time, it is likely to become a morbid conscience which will be so overwhelming that other departments of the mind will suffer detriment. For one to uselessly regret having spilled milk, spilled money, or spilled health (or morals), is like crying for water that has already gone under the bridge. It exasperates the present and excoriates the future. It kills initiative—and a physician, without initiative, is no good.

How often do we meet with patients whose whole life is one of vain regrets? The pill that cures these patients is difficult to compound.

The remedy is a new start, the right road, and then the desired destination.

Economics

THE PROBLEM OF MEDICAL CHARITY

(Under the title used above, an Original Article, written by Dr. Linn Emerson, was published in this Journal (Aug. 1930, p. 676). On the first of February, 1932, we received from Dr. Emerson the following announcement of his intention to enlarge upon his experiment, and attached thereto were several printed forms—in the nature of prescription blanks, for medicines or spectacles, instructions, records, or, confirmation of patient's charity status—which experience had invented; and which we also reproduce with his letter. Believing that his colleagues in practice would be as interested as was the Editor in further knowledge of his interesting economic experiment, we asked for further information and for permission to promulgate the details through the Journal. Dr. Emerson's letter, of February 8, is the result of that correspondence.—Ed.)

About 18 months ago, Dr. Emerson inaugurated a *Pay Clinic* for patients in moderate

circumstances. The fee at this clinic is \$3 for the first visit and \$2 for subsequent visits. The large number of patients coming to this clinic has proved its need. So many have come who could not afford to pay even those small fees, that it has been decided to enlarge the scope of this work, and establish a *Dollar Clinic*, with a fee of \$1 for each visit.

To simplify routine, it is suggested that patients sent to this clinic be supplied with a note recommending them to the *Dollar Clinic*. In doubtful cases, to obviate the necessity for social service investigations, the enclosed blank will be employed to assist in proving the patient's worthiness.

For the present, the *Dollar Clinic* will be carried on at the same hour as the *Pay Clinic*. If its growth justifies, it will be given the hour following.

Arrangements are made to have these clinic patients get their glasses at considerable reduction in cost.

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Dear Reik: Your kind letter of February 3, relative to the progress of my *Pay Clinic*, has been duly received. As you know, my paper on Medical Charity, and the inauguration of the clinic, were the results of several years of careful thought and study. I am quite at variance with the majority of our County Society members, in the matter of *annual registration, state medicine*, and the manner in which most of our hospitals and clinics are conducted. Exploitation of the medical profession by society at large, has gone rapidly from bad to worse, and now the boomerang—"the high cost of illness"—has resulted in protests from all classes. Our profession has been such a willing ass that everybody takes it for granted that the burden of medical charity must and should be borne by the medical profession. Politicians, legislators, hospital lay boards, social service workers, welfare organizations, and those eminent members of our profession who have "arrived", all work hand in glove to perpetuate the present evil system. The economic outlook of the young doctor for his first 10 years is most precarious. If he voices a protest, he is promptly squelched by his Chief, who expiates on the years he, himself, worked and starved before he "arrived".

The competitive spirit of the large special hospitals and clinics makes for development of the largest clinic possible, and the Chiefs of Service who get the high priced consultations and operations, concern themselves but little with the fact that thousands who can afford to pay moderate fees are treated free of charge by the poor juniors who are having great difficulty in making a bare living. Many of these patients think the doctors are paid, and do not realize they are accepting medical charity. Some confess ability to pay moderate fees, but dare not consult the specialist at his office, fearing

the charge will be beyond their means. A certain percentage say: "Why pay for what you can get for nothing?"

The attitude of the politician and the municipal office holder is well illustrated in the present dilemma of the Orange Memorial Hospital, whose venereal and syphilis clinic has grown to such size that not enough doctors can be secured to give the intravenous treatments. The only solution seems to be a full-time paid technician to give those treatments. At a recent meeting of the Executive Committee of the Medical Board, and the Health Officers of the various municipalities served by this clinic, the Health Officers were unanimous in refusing to recommend the payment of \$2000 per year for such a technician, since they were already paying the munificent sum of \$5400 per year toward the support of this clinic; and 1 Health Officer stated that the treatment of syphilis was not a *health problem* but a *medical one*, and that it was up to the physicians.

I think most medical men will agree with me that venereal disease is as great a menace to society as tuberculosis, and we all know what our various tuberculosis sanatoriums are costing the taxpayer. The amount necessary to finance this clinic is less than the graft in the paving of half a dozen city blocks. The care of the sick poor is just as much a municipal matter as is our water supply, sewage disposal, fire and police protection; and it should not be so largely borne by the medical profession.

So long as the doctor continues to give $\frac{1}{4}$ to $\frac{1}{2}$ of his time gratuitously, he must overcharge those who do pay. Why do some doctors farm themselves out to an insurance company or industrial corporation to do \$10,000 worth of work for \$1500 per year; sell their whiskey blanks; perform abortions; do needless operations; and make unnecessary visits after the patient is convalescent? Usually, on account of economic stress and the dire need of money. The onus of such conduct on the part of a few must be borne by the whole profession. The general public is a poor judge of doctors. Play the part of a little mouse behind the door, at some women's bridge club, or in the locker room of one of our golf clubs, and you will hear confrères whom you know to be honest and competent, maligned and abused, while encomiums are heaped on the "four-flushers" and the "bull-throwers".

Needless to say, the proposal to pay all doctors moderate compensation for all charity hospital and clinic work would meet with general disfavor. Even the medical profession would frown upon it, since it smacks of "state medicine" which is *noli me tangere*. State medicine is in the offing, and the medical pro-

fession is short-sighted in not going out to meet it. Fighting it but postpones the evil day, and unless we change our attitude we shall have it foisted on us by the politicians and administered by them instead of by ourselves.

Since my ideas are so revolutionary, and I cannot hope for a change during the few short years left me, I have formulated a plan which will enable me to give service to my own patients at a price which they can afford to pay. The "pay clinic" and the "dollar clinic" enable me to sort the sheep from the goats, avoiding offense to patients of wealth and refinement, and giving the others equal time and skill.

Several doctors have already consulted me, with the idea of adopting the same plan.

Yours sincerely,

Linn Emerson.

Esthetics

CONSIDER THE LILIES

(From *The Kalends*, published by the Williams and Wilkins Company, of Baltimore.)

They grow: they toil not, they spin not. And yet we are told that Solomon in all his glory was not so arrayed. Which fact, of course, in these days of mass production, low unit costs, and differential equations to determine the exact amount of energy that should be derived from a gram of human sweat, is undoubtedly criminal of the lilies. Nevertheless, there yet remain a few of us who are more interested in the lilies of the fields, the violets of bosky dells and the roses of the garden, than we are in the gospel of industrial efficiency. We are well content, scofflaws as we be, to aid the criminal proclivities of the lilies, the violets, and the roses.

The apostles of modern industrialism, supported by their acolytes, the so-called "efficiency" experts, may snicker and ask, "Why consider the lilies, they produce not?" Well, an all-sufficient answer is that the annually recurring miracle of Spring, pressing upon our mind and awakening spirit as well as matter, causes more than a few of us to feel humble, and to pause in our feverish, but puerile, strivings after things that can be comprehended, to gaze with awe upon that which is beyond our comprehension. And so we consider the lilies: They toil not, yet they grow!

Woefully inefficient though we be, in the interpretations of the "efficiency" engineer, yet many of us hold that this life, short though its span may be, contains vistas whose surpassing beauty the man whose god is "Industrial Effi-

ciency" will *never* know. For we hold to the belief, fallacious though it may now seem to be, that man is not, or *will* not continue to be, a mere mechanical clod of clay—the plaything of the winds of chance.

And it seems sure that all those who really *consider* the lilies are also sure that the miracle of Springtime is man's inevitable, and almost invincible return to the fight to fashion himself in the likeness of the God who conceived him. Therefore, we end as we began by considering the lilies: They toil *not*, yet they *grow*! And so, likewise, is the growth in the stature of men! Truly *great* men—men whose memories are revered instead of cursed—never have been "efficient" in the modern interpretation of the term. Moses, Buddah, Confucius, Jesus Christ, even Mohammed, *all* brought peace to the souls of men. *They* all considered the lilies!

Special Article

CHALLENGING MISLEADING ADVERTISEMENTS

By the Editor

Our readers will recall Editorials in the *Journal*—issues of February, April and June, 1931—concerning the advertising methods of some cigarette and cigar manufacturers, and also our repeated recommendations that: this State Society; its component county organizations; and the Woman's Auxiliary, state and county groups; should, individually or collectively, launch and sustain a war upon false or misleading advertising of remedies and alleged cures. We are right now taking advantage of an opportunity to urge, once again, that some such action be taken. Who will start it? There is great need for work of that character; not a single county in New Jersey whose citizens could not profit by a campaign against quackery and false advertising of medical, semi-medical, and some non-medical—but yet health-affecting substances.

We know not in what numbers, nor in what percentage relative to membership, our readers fear the possible results of such a campaign, but we have encountered some (less than 5, personally) who feared the consequences of denouncing these imposters; feared to express their honest opinions of so-called medical preparations, or other forms of treatment; advertised to perform miracles—and which advertising matter they knew to be dishonest and, in some instances, dangerous to their patients and even their intimate friends and relatives. That the risk of personal or organizational

punishment for daring to expose these health racketeers is small—indeed so small as to be negligible—is well proved, if such proof was necessary, in our own experiences and, now, in the experience of our Field Secretary.

In her repertoire of public lectures for this year, the Field Secretary included a newly prepared talk on "Medical Quackery and Nostrums", accompanying that lecture with a *demonstration*, by charts and lantern slides procured from a coöperative alliance with the American Medical Association's Bureau of Investigation.

With so much by way of introduction and explanation by the Editor, the following letters become self-explanatory.

(1) *From N. W. Ayer & Son, Inc.*, Advertising Headquarters in New York City, under date of Feb. 18, 1932, to Mrs. E. C. Taneyhill, Field Secretary of the Medical Society of New Jersey.

Dear Madam: It has come to our attention that in some of the good talks you have been making you have taken occasion to refer to *Vapex* in rather unfriendly terms. It so happens that we are the advertising agents for *Vapex*, and since it is our policy to look into the merits of a product and the claims made for it before we accept the advertising, we are confident that there must be some misunderstanding regarding the place that rightly belongs to *Vapex* in the medicine cabinet for the relief of the distress of head colds.

As you probably know, Good Housekeeping Magazine, the New York Times, Parents' Magazine, as well as the Curtis Publishing Company, maintain a most rigorous censorship over the advertising of medicinal products that are admitted to their columns, and in every case the *Vapex* advertising has been welcomed and solicited by the publishers.

Under the circumstances, I feel there must be some misunderstanding on your part, and I would greatly welcome an opportunity of discussing the matter with you.

With good wishes, and assuring you of our appreciation of the splendid work you are doing, I am

Yours very truly,

(signed) Frank J. Zink,
Vice-President.

(2) *From our Field Secretary*, under date of Feb. 20, 1932, to Mr. Frank J. Zink, Vice-President of N. W. Ayer & Son, Inc., New York City.

Dear Sir: This will acknowledge your courteous letter of February 18. I am surprised that my feeble voice has already reached so far; also, rather puzzled by your assumption that I could possibly be basing my public utterances on any "misunderstanding" in regard to the statements that I make.

The authority for those statements rests not with me but with the Journal of the American Medical Association. Every word of my talk on "Medical Quackery and Nostrums" is read from manuscript and the reference to *Vapex* is quoted verbatim from the report of the Bureau of Investigation in the Journal of July 18, 1931, pages 196-7.

I do not know by what standards the "rigorous censorship" of the advertising in Good Housekeeping Magazine, The New York Times, Parents' Magazine and the Curtis Publishing Company (you omitted The Literary Digest, which also carries *Vapex* advertising) is maintained, but if the official

organ of the American Medical Association is not acceptable as authority in its own field. I cannot imagine just what those publications *would* consider a reliable guide for the public in matters of self-treatment.

As to your suggestion that we might discuss this subject, I can only say that at present I do not see any opportunity for a meeting as my schedule has not a break until the middle of May.

In any case, I am but a mouthpiece of the organization which employs me (with whose aims I am, however, in complete accord), so your time would be more profitably spent in presenting your point of view to the Editor of the Journal of the American Medical Association.

With thanks for your very kind comments on my work, I am

Very truly yours,

E. C. Taneyhill,
Field Secretary,
Medical Society of New Jersey.

To the above repetition of one of our favorite sermons, embracing another exhortation to duty, the Editor might fittingly add, in ministerial parlance, "thus endeth the reading of the morning lesson". Mrs. Taneyhill has received nothing further from the advertising agency and, most likely, will hear nothing more. Manufacturers of proprietary medicines, publicity or advertising agents, newspapers and magazines which subsist, more or less, upon revenue derived from the sale of advertising space; none of them desire the kind of publicity they would bring down upon themselves in the open Court by a "suit for slander", and the usual blustering protest accompanied or followed by a threat, made or implied, is mere buncombe and camouflage to produce, if possible, an effect and cover a retreat. The complete story of the cigarette editorials is highly amusing and we may some day find time to write it for your delectation.

In Lighter Vein

Faithful Jimmy

Burglar (to belated assistant): "You're late. I told you 'arf past one."

Young Burglar: "I forgot the number of the 'ouse. I've had to break into every 'ouse in the street."—Passing Show.

Early Christening

Caller: "And what are the twins to be named, Johnny?"

Johnny: "Helen and Maria."

Caller: "Why, no, Johnny; it can't be that."

Johnny: "Well, anyhow, that's what pop said when the nurse brought 'em in."—Boston Transcript.

Might Curry the Goat

Our idea of a soft job is being valet to Mahatma Gandhi.—Owl.

Lighthouse Observations

PREVENTION OF OBSTETRIC COMPLICATIONS BY DIET AND EXERCISE

Arthur W. Bingham, M.D.,
East Orange, N. J.

(In view of the efforts being made by a Special Committee of the State Society to improve obstetrics in this state, through Special Committees from the County Societies, the Editor hopes he may be contributing something by devoting this space to reproduction of instructive obstetric articles; hence this reprinting of an article by Dr. Bingham.—Ed.)

The practice of obstetrics has passed through various eras. Forty or 50 years ago was the era of noninterference. Patients were allowed to go on in labor for days and sedatives were seldom used. This was followed by an era of excessive interference, when labor was induced at any time convenient for all concerned, and the baby was delivered on scheduled time, no opportunity being given for a natural birth or for separation of the placenta. If labor did not proceed rapidly enough a cesarean section was performed.

Now, we are entering the era of common sense obstetrics with more attention given to preventive treatment. An attempt is made to follow nature; sedatives are given when indicated; and care is taken not to hurry the labor. Assistance is given when found necessary. Prenatal care has done much to improve the obstetrics of today. Can it not do more?

Prenatal care is carried on along 2 different lines. One might be called the informative method and the other the preventive. In the first, records are kept regarding blood pressure, weight, and urinalysis; and when abnormalities are found the proper treatment is prescribed. In the second or preventive method, besides keeping such records, advice is given in an attempt to prevent complications before the signs of approaching trouble are clear.

Watching the weight of patients over a long period of time it became apparent that most of those who gained much weight, or gained too rapidly, had more complications than those who gained only moderately. The fact that a few patients have normal labors and deliveries in spite of excessive weight, proves only that there are exceptions to the rule, but that should not mislead us. Study of a considerable number of cases has

proved that, in general, a patient who has gained weight only moderately, and who has exercised in the open air, will seldom show signs of toxemia unless the kidneys were damaged before pregnancy took place.

Control of weight cannot, as a rule, be accomplished simply by diet. It is necessary, in addition, to have the patient exercise in the open air. Many patients tell us they have so much to do about the house that they do not need to walk. This housework does not take the place of a walk in the open, and a short walk should be urged upon such patients after the third month. Walking in the open will improve metabolism more than anything else such women can do, and improved metabolism means less toxemia and anemia. Maternity patients in the wards may show more anemia than private room patients, partly because they do not always get the right food but mainly because they have been working in the house all day and not getting sufficient open air exercise.

What is overweight in pregnancy? The average woman of medium size should not gain more than 15-20 lb. during pregnancy. Stout patients should gain less, and tall patients may be allowed a few pounds more, but weight should not increase rapidly because frequently a sudden gain will precipitate an attack of toxemia, even though the total weight may not be excessive.

Regulation of weight by diet and exercise accomplishes several things:

- (1) Most important, it helps to prevent toxemia.
- (2) Patients are less anemic.
- (3) It makes labor easier by reducing the amount of fat in the pelvis; as may be shown by a case history:

A patient came to me with a history of difficult labor and forceps delivery with her first pregnancy, and a more difficult delivery with the second, which resulted in a still-birth. Her physician had recommended a cesarean section in the event of another pregnancy. She was 2 months' pregnant when first seen by me and weighed 200 lb. It was suggested that she reduce a little and let the question of cesarean section rest. With the aid of diet and exercise she gained only 3 lb. in the next 7 months. She had a very short labor and a living child was delivered by easy low forceps, the pelvis being contracted at the outlet. The baby weighed the same as the one which was still-born (8½ lb.) but the mother weighed 40 lb. less than at the previous labors.

- (4) The size of the baby is generally less than when the weight of the patient is excessive. We all know that the weight of the baby cannot always be controlled, especially if the patient is

TABLE I

Pounds Gained	Nontoxic Cases		Toxic Cases				Per Cent		Per Cent	
	Prim.	Mult.	Eclampsia		Marked Toxemia		Marked Toxemic Cases	Mild Toxemia	Total Toxemic Cases	
			Prim.	Mult.	Prim.	Mult.		Prim.	Mult.	
1-10	57	75	—	—	—	—	—	—	1	0.7
11-20	277	298	—	—	3	1	0.6	5	—	1.5
21-30	211	253	—	—	7	2	1.8	9	8	5.3
31-	54	63	2	—	4	2	6.1	3	3	10.6
<hr/>										
1-20	334	373	—	—	3	1	0.5	5	1	1.3
21-	265	316	2	—	11	4	2.7	12	11	6.4
<hr/>										
Cases No.										
1-669	301	339	2	—	10	3	2.2	8	6	4.3
670-1238	298	350	—	—	4	2	0.8	9	6	3.1

quite heavy at the beginning of pregnancy, as in the case reported above, but the average will be lower if the mother's weight is kept down, and the labor will, as a rule, be easier. The weight of the baby is influenced by the amount of exercise the patient takes, as much as by the food taken. While the patient considers this the most important reason for diet and exercise, it is really the least important.

Recently, I delivered a woman who, 2 years before—after a difficult forceps operation—had a still-birth weighing 9 lb. Her external conjugate was 17 cm. and she had gained 30 lb. This time, with careful diet and exercise, she gained 10½ lb. and yet had a normal delivery. Baby weighed 7¼ lb. The patient, as well as her baby, is in excellent condition.

The obstetric complications which can be reduced by diet and exercise may be stated as follows: toxemia, eclampsia, accidental separation of placenta, difficult forceps, lacerations, induction of labor, cesarean section, subinvolution, postpartum hemorrhage, postpartum shock, infections, transfusions for anemia and hemorrhage, prolonged convalescence, premature babies, stillbirths.

It is evident that if toxemia alone can be avoided, and the patient's general condition improved, many of the other complications can be reduced. Tables I, II, III and IV indicate some of the results which may be accomplished by controlling the weight of the patient by diet and exercise.

Table I shows the normal and toxic cases in 4 groups according to gain in weight. Cases of mild toxemia are those showing a rise in blood pressure or a trace of albumin at the last prenatal visit. They were at full-term and required no treatment. The total number of patients studied was 1338 and included only women who had been given prenatal care by me for at least 4 months. Hypertension and nephritic cases were omitted as they are abnormal from the start. The gain in weight was figured from the normal weight before becoming pregnant. The second grouping on Table I shows that a patient gaining more than 20 lb. is nearly 5 times as likely to become toxic as one who gains less than 20 lb. The single mild, toxic patient in the 1-10 group had 2 sisters who had eclampsia, and her father's death was due to hypertension, so that it is possible she is potentially a nephritic. All of the markedly toxic patients in 11-20 group were induced; so had no chance to gain more. The third grouping on Table I shows the total cases divided in half, the second half showing an improvement over the first. The improvement is not so marked, because all of those patients were given careful prenatal care. There were no cases of eclampsia in the last half.

Table II shows the same grouping as Table I but in reference to cesarean section operations, inductions, and premature infants due to toxemia. All the cesarean sections due to toxemia were done on patients who had gained more than 20 lb., and the percentage of inductions for toxemia was doubled. The percentage of premature infants due to toxemia was tripled. In the last half of the group, the cesarean sections were reduced, and 7 of the 11 were patients who had previously had sections. In the first half, only 1 patient had previously had a cesarean section. Inductions were reduced, as were premature infants.

Table III shows the average weight of babies in the different groups. Those in the 1-10 group were not undersized nor delicate and yet they

TABLE II

Pounds Gained	Total No. of Cases		Cesarean Sections		Cesarean Sections Done for Toxemia		Per Cent Toxic Cesarean Sections		Inductions		Inductions for Toxemia		Per Cent Toxic Cases Induced		Prematures Due to Toxemia		Per Cent Prematures Due to Toxemia	
	Prim.	Mult.	Prim.	Mult.	Prim.	Mult.	Prim.	Mult.	Prim.	Mult.	Prim.	Mult.	Prim.	Mult.	Prim.	Mult.	Prim.	Mult.
1-10	57	76	1	4	—	—	—	—	1	—	—	—	—	—	—	—	—	—
11-20	285	299	5	5	—	—	—	—	4	5	4	1	—	0.8	1	1	0.3	—
21-30	227	263	4	8	1	1	0.4	—	2	1	2	1	0.6	—	—	1	0.2	—
31-	63	68	3	4	2	—	1.5	—	3	2	3	2	3.8	—	2	1	2.2	—
1-20	342	375	6	8	—	—	—	—	5	5	4	1	0.6	—	1	1	0.2	—
21-	290	331	7	12	3	1	0.6	—	5	3	5	3	1.2	—	2	2	0.6	—
Cases No. 1-669	321	348	11	9	3	—	0.4	—	6	7	6	3	1.3	—	2	2	0.5	—
670-1338	311	358	2	11	—	1	0.1	—	4	1	3	1	0.5	—	1	1	0.2	—

weighed about 1 lb. less than those in the 31 lb. + group. This pound might make quite a difference in many cases of labor. It also shows the average hours in labor; the difference being especially marked in primipara. The last half of the group shows very little change in weight, but the average length of labor has been reduced.

Table IV shows all patients divided into 4 classes and their weights averaged in each class. The average weight of the 1288 nontoxic patients is 19.9 lb.; the 29 mildly toxic average 24 lb.; the 19 markedly toxic 27.1 lb., and the 2 eclamptics average 35 lb.; showing that when a patient gains more than 20 lb. she is in greater danger of toxemia in proportion as her weight increases.

TABLE III

Pounds Gained	Average Weight of Baby		Average Hours in Labor	
	Prim.	Mult.	Prim.	Mult.
1-10	6.9	7.2	10.4	6.0
11-20	7.2	7.3	13.4	7.3
21-30	7.5	7.8	14.2	7.5
31+	7.8	8.3	16.4	7.6
1-20	7.1	7.3	12.9	7.1
21+	7.5	7.9	14.7	7.5
Cases				
No. 1-669	7.4	7.5	14.9	8.2
670-1338	7.3	7.7	12.5	6.4

other month but if she gains 4 lb., or more, she is told to restrict starchy foods still more. Roughly speaking, the gain during the first 3 months will be very little, then the gain each month should be approximately 4, 3, 3, 3, 2 and 2 lb., and the diet regulated accordingly. Often, if the patient is in good condition, there will be a loss of weight during the last 2 weeks. While the diet is being watched the amount of exercise in the open air must be prescribed.

During the first 3 months very little exercise is required. There will be less nausea and less danger of miscarriage if this rule is followed. However, if there is very little nausea and no danger of miscarriage, a moderate amount of walking is good. After the third month, the patient should start walking about ½ hr. daily and this regulated to a longer or shorter time, depending on weight and general condition of patient. A few patients in danger of premature labor will not be able to walk far, while others may walk 1-2 hr. daily. This may be continued up to the end of pregnancy.

If in spite of moderate diet and exercise, weight is increased too rapidly; before signs of beginning toxemia appear, the patient's diet is supplemented as follows: Twice weekly or every other day, as indicated, regular meals are discontinued and patient takes 1 glass of milk with 1 cracker at 8 and 11 a. m., and 2, 5, and 8 p. m. Two oranges are allowed during the day and possibly 1 green vegetable and a cup of coffee. If care is taken not to

TABLE IV

	Non Toxio Cases Average Gain in Weight 1288 Cases	Mild Toxemia Average Gain in Weight 29 Cases	Marked Toxemia Average Gain in Weight 19 Cases	Eclampsia Average Gain in Weight 2 Cases
35				35 pounds
30				
25		24 pounds	27.1 pounds	
20	19.9 pounds			
15				
10				
5				

How is this regulation of diet and exercise managed? Each patient is handled individually, depending on her weight, height, normal blood pressure, and past history. As a rule, there is no attempt to control the weight during the first 3 months of pregnancy as most patients gain very little at that time. It has been found that carbohydrates should be largely taken during this period. In cases of nausea they should be taken every 2 hours. Meat, eggs, milk, and fruit should be taken in moderation.

After the third month carbohydrates should be cut down and more vegetables and fruit taken. A moderate amount of milk should be taken, depending somewhat on the gain in weight. Red meats are omitted during the last 6 weeks although it may be that this rule is not so important as formerly considered.

As a rule, the patient is told to take a general diet for the fourth month care being taken not to over-eat. If, after 1 month the gain is not more than 4 lb., she may be allowed to continue on the same diet another month, being cautioned to omit sweets and take starchy foods sparingly. If patient gains less than 4 lb., she goes on for an-

increase the diet over the average amount on the off days, this will in most cases reduce or check the increase in weight without much discomfort to the patient. When weight is controlled, more vegetables and tomato or lettuce salad may be added to the milk diet of those days. Various combinations may be used. By allowing the patient to eat meals on alternate days, with the milk diet, the weight can be controlled without the diet becoming tiresome.

Conclusions. No attempt has been made in this paper to cover the subject of prenatal care, the single idea being to emphasize a feature which is more or less neglected. More than 4000 women die annually in the United States from toxemia, including eclampsia. If, by attention to diet and exercise, the incidence of toxemia and eclampsia alone can be greatly reduced, is it not worth while? When I survey the record of obstetric patients of the past, in comparison with those of today, I realize that my work has become simpler, and the results so much better, that credit is naturally given to the effort to instruct patients in regard to diet and exercise.

Current Events

WELFARE COMMITTEE MEETING

At the request of the Chairman of the Welfare Committee, Dr. A. Haines Lippincott, a special meeting was called for March 6, at the Hotel Stacy-Trent, Trenton, at 2 p. m. Roll call disclosed the presence of the following members: Brown, Clayton, Joseph G. Coleman, Conaway, Davis, Donohoe, Green, Hagerty, Haggerty, Lee, Lippincott, Londrigan, McBride, McMahon, Meigh, Morrill, Morrison, Morrow, Nafey, North, Schauflier, Schlichter, Sewall, Sherman, Sommer, Ulmer; excuses were received from: Bloom, Haussling and Larkey. Guests present: McCray, Quigley, McGuire, Ely, Mahaffey and Samuel B. English.

The Executive Secretary read his report, as follows:

Executive Secretary's Report to the Welfare Committee

March 6, 1932

Nothing out of the usual routine of the State Society's work has happened since the last meeting of this committee, on January 31, and, in consequence, the Executive Secretary has but little to report.

As this special meeting was called for the purpose, principally, of considering the status of legislation now pending in the General Assembly of New Jersey, this report will be confined to such matters.

Up to the time of our last meeting, only a few Bills having an apparent medical bearing had been introduced, but since that date the usual large crop has developed; there having been up to and including March 1, a total of 265 Bills presented to the Senate, and 446 to the House of Assembly; or, a grand total of 711. Owing to delay in the printing of some Bills, we were unable to secure prior to February 22, copies of all of the 16 Bills of interest to this body which had been introduced prior to February 16. As soon as possible, then, under date of February 23, we issued a letter, addressed to members of the General Assembly of New Jersey, in which those Bills were dealt with separately and our reasons given, in each instance, for the society's approval or disapproval. A mimeographed copy of that letter was mailed to each member of the House and the Senate, and also to each member of this Welfare Committee; and as each of you had an opportunity to read that document, it would seem superfluous to present that letter now unless some member of the committee desires that it should be done.

Of those Bills which received our approval, 2 remain where they were, with the committees to which they were referred at the time of introduction, and 4 have been advanced as follows: A. 72, permitting injured workmen to select their own physicians, has passed the House and gone to the Senate; A. 149, the Crippled Children's Bill, has gone to the Senate; A. 174, designed to relieve physicians, in so far as a state law may, of the restrictions now attached to the prescribing of medicinal liquors, has also passed the Assembly and gone to the Senate; and A. 245, giving the Governor the right to investigate and control any state agencies and departments, is likewise now in the Senate.

The Bills disapproved by this body, as stated in the letter above referred to, are all held in

committee except: A. 73, to create a State Board of Examiners licensing barbers, has been amended (though we are not yet informed as to the nature of that amendment) and is on the Third Reading File; and A. 241, which concerns the control of expenditures made by special state officers, agencies and Boards, has been reported out of committee and is upon the Third Reading File.

Since the distribution of our letter, concerning the 16 Bills referred to, 3 additional measures have been brought to our attention, as follows:

S. 204, described in the Legislative Index as giving physicians a lien upon financial awards to the victims of accidents, may be an attempt to secure the legislation which this body had under consideration, but as yet we have been unable to secure satisfactory information concerning that point nor have we succeeded in discovering its origin. As soon as we learned of the matter, we caught Dr. Londrigan by telephone and requested that he look into the matter; consequently, we anticipate that he may have a report to present.

Another Act, A. 175, is called to your attention for the reason that we are not sure what action should be taken. It is an amendment to the law concerning the keeping of records and making reports upon patients suffering from tuberculosis, and, if adopted, the registration lists in possession of Boards of Health would be opened to inspection by "any regularly incorporated health society engaged in the relief and prevention of tuberculosis" * * * * "but information thus gained must not be divulged to others, etc." Some of the members of this committee, associated with tuberculosis work, may be able to tell us the purpose of this Bill and whether we should support or oppose it.

A. 257 is a Bill which provides for reorganization of the State Board of Health, converting that body into a "Department of Public Health" under the direction of a Chief who is to be a member of the Governor's Cabinet; it is a part of Governor Moore's plan for reorganizing and improving the conduct of the state's business. In a special letter, under date of March 1, sent to each member of the House and the Senate, we have directed attention to the good record of the Board of Health; stated that we are not aware of any serious criticism of the Board's work and requested that action upon the Bill should be delayed until the question can be more carefully studied than is likely to be possible at this session of the Legislature.

No one can positively say what will happen to any bit of pending legislation, but we have been assured, as strongly as is possible at the present moment, that none of the Bills, to which we have objected, will be passed.

All of which is respectfully submitted by

Henry O. Reik, M.D.,

Executive Secretary.

The Chairman, referring to a clause in the Executive Secretary's report, asked Dr. Londrigan if he desired to report concerning Senate Bill 204.

Dr. Londrigan explained that he had made inquiry concerning that Bill but had been unable to ascertain the source of its origin. It is not an amendment to the present law, secured by the Society and relating to hospitals having a lien upon funds awarded to patients under treatment for conditions resulting from accident, but it would seem to be applicable to the situation and might supply what the Society desires but had

decided not to ask for at this session of the Legislature.

After some discussion, it was felt that the committee had best take no action at present upon that matter.

The Chairman, referring to another clause in the Executive Secretary's report, asked Dr. Morrow if he could explain Assembly Bill 175?

Dr. Morrow said that he recognized the Bill as a duplicate of one presented to the Legislature several years ago, but that he was not sufficiently well informed to advise the committee what action to take, if any.

Dr. Morrison moved that this Bill be laid on the table.

Dr. Quigley suggested that it be referred to the special committee to keep a watch upon legislation, appointed by Dr. Hagerty.

At that moment, Dr. Samuel B. English entered the room, and the Chairman requested the Executive Secretary to again state the character of the Bill under consideration so that Dr. English might, possibly, be able to throw some light upon its origin and purpose.

After the Secretary had stated the situation, Dr. English said that he was quite familiar with the Bill, inasmuch as it had been written by himself, and that all of the institutions engaged in the treatment of tuberculosis, and especially those physicians who are interested in trying to get patients to the hospitals and sanatoriums during the incipient stage of their tuberculous infection, desired to have this bit of legislation enacted into law, and he hoped that the Welfare Committee would endorse it and assist the efforts to have it adopted.

Drs. McBride, Londrigan, Donohoe and Quigley discussed the question further, and Drs. McBride and Londrigan emphasized previous reference to the desirability of having *all medical legislation proposed by members of the profession, presented to the Welfare Committee before being taken to the Legislature.*

Dr. Quigley asked about the legislative status of A. 44?

The Executive Secretary stated that it is in care of the Public Health Committee in the House of Assembly.

Dr. Quigley then asked the date of its introduction, and, when informed by the Executive Secretary that the date was January 25, stated that he had received a telegram, under date of February 24, from Dr. Newcomb, stating that his Bill was not receiving any support from the profession and that the Chairman of the committee had stated that not one member of the medical profession had spoken to him in favor of that Bill. He further referred to the fact that the Executive Secretary's letter to members of the Legislature was of the same date as the telegram referred to, February 24.

The President, Dr. Hagerty, called attention to the point that the Executive Secretary had explained, in his report, the delay in issuing that letter, but he hoped that he would, for the benefit of all, describe fully his routine method of dealing with proposed legislation.

Dr. Reik thereupon explained that the Legislature convenes immediately after the first of January, and that a number of new Bills are introduced during the first 2 or 3 weeks of the legislative term and then are referred to various committees. Printed copies of Bills introduced can never be gotten in less than a week from the date of introduction; sometimes it requires longer; oc-

asionally, one must wait for a second printing because the first supply has been quickly exhausted.

He collects copies of Bills as quickly as possible after their introduction, carefully studies their contents, lists those which he thinks merit approval of the Welfare Committee, and a separate list of those which he feels confident the Welfare Committee will disapprove, and sometimes has a third list of *doubtful* measures; which plan was followed this time.

Having presented his collection of Bills to the Welfare Committee, and that committee having voted upon each, as to approval or disapproval, he then writes a letter to each member of the Legislature, Assemblymen and Senators, (and this time copies were sent also to State Society Officers and Members of the Welfare Committee) stating that the Welfare Committee, representing 2600 of the leading physicians and surgeons in the state of New Jersey, favors some and is opposed to other pending Bills, and he gives the Committee's reason, in each instance, for approving or disapproving their enactment. Referring particularly to the Bills disapproved, he further watches their course, and if he learns that any one of such Bills is receiving favorable consideration, immediately requests the Chairman of that committee to grant a public hearing upon that particular Bill. In the event that a particularly bad Bill has appeared, he takes further measures designed to effect its defeat.

"That is the plan", said Dr. Reik, "devised by Dr. McBride and the Executive Secretary, and which has been successfully followed for the past 5 years; during which time every Act opposed by the Welfare Committee has been rejected."

Referring to the point raised by Dr. Quigley, that A. 44 had not been recommended for passage earlier than February 24, he stated that the date of issuing his letter was this time later than usual, and the reason for that delay had been given in his regular report read to the committee at this session, but he would like to explain further that he had known full well that his delay in issuing this letter was not hurting anybody or endangering any of the matters represented in the other Bills; because he had been authoritatively informed that no action would be taken on the other Bills during February, and, he added, that he could have informed Dr. Newcomb before the Legislature met that his Bill would have not the slightest chance of passing into law during this session of the Legislature. He added that it probably is true that the Chairman of the Committee in charge of that Bill is holding it back, but the Chairman is *not holding it for the reason given by Dr. Newcomb*; the Secretary has good reason to believe that the chairman is personally opposed to the Bill, and that another member of that committee, also a physician, is reported to be opposed to the Bill.

Dr. J. G. Coleman asked for information concerning the right to employ osteopaths as school physicians, and reminded the Executive Secretary that an instance of that kind had been discussed at a meeting of the Sussex County Medical Society about 1 year ago.

Dr. McGuire announced that it was contrary to law for Boards of Education to employ osteopaths in that capacity.

Dr. Reik answered that he was fully aware of the Supreme Court's decision on that point; that he had published the Court's decision in the Journal; and that immediately after the county society meeting referred to, he had endeavored to keep his promise by directing attention of the

State Board of Education to the alleged action in Sussex County, but that when he endeavored to procure from the Sussex County Society information that might be used to substantiate the charge, the member of that society who had talked considerably about the matter at the society meeting suddenly lost interest in it when requested to furnish proof and, in consequence, nothing could be done.

Dr. Quigley, having, in previous discussion of A. 44, asked for information concerning A. 72, and the Executive Secretary having stated that Dr. Sommer had been constantly watching that Bill, Dr. Sommer now explained that the Bill was passed by the House on February 24 and reached the Senate on February 29, where it still rests in committee. Dr. Sommer then referred to A-215, and said that he was not sure that the Bill would improve matters very much, and thought that if it became a part of the law, the result would probably be that every "hernia case" would receive compensation.

He had discussed the matter with Dr. McBride and would continue to keep guard over the Bill until that matter is definitely disposed of.

Dr. D. Leo Haggerty presented a bill of \$25 for subscription to Legislative News, for use during this session of the Legislature, and it was approved, to be paid from the Welfare Committee budget.

The Executive Secretary requested that the Welfare Committee authorize payment for some extra clerical work and repairs to the society's typewriters, because the damage had probably resulted from this committee's work, the combined items amounting to approximately \$30; and upon motion duly seconded the Secretary's request was granted.

Dr. Sherman referred to the status of a Bill introduced by the optometrists—S. 45—and promised to continue to watch it and, if possible, to defeat it.

President Hagerty then brought up the resolutions introduced at the Annual Meeting in Asbury Park, referring to Dr. Waters' plan for determining the qualifications of specialists and certifying such specialists as qualify to the public; and he distributed mimeographed copies of that plan, with the request that all members give it consideration in order that they may be prepared to discuss it and act upon it when presented at some later date.

Dr. Morrison expressed a wish to emphasize some of the points referred to by the President and urged members to think it over carefully with a view to adopting the Waters' plan, or some modification of it, at an early date.

The committee then adjourned.

Henry O. Reik, M.D.,

Secretary, Welfare Committee

COSTS OF MEDICAL CARE DISCUSSED AT MEETING OF PHYSICIANS AND LAITY AT ACADEMY OF MEDICINE

(This report, distributed by the Committee on Public Health Relations, of the New York Academy of Medicine, he believes, was received by the Editor for publication—in full or in part—in the Journal; and he has made no changes, save such as were necessary to conform to our Journal's publication customs, and the employment of *italics* to emphasize statements he considered exceptionally important to members of our State Medical

Society. Throughout the article, then, understand that the *italicized words were put into italics* by the Editor. Further, the Editor desires to say that preliminary reports from the National Committee on the Cost of Medical Care, mostly in the nature of subcommittee or investigating agency reports, have been accumulating for some months, and he will now start upon their publication in the Journal so as to lead up to and be prepared for the Committee's full and complete report when received.—Ed.)

Implications affecting 120,000,000 people, drawn from a 5-year study of the distribution and costs of health service in the United States, the results of which will be made known in November, were discussed at a public meeting jointly sponsored by the Committee on Public Health Relations of the Academy and the Committee on the Costs of Medical Care, on the evening of March 8, at the New York Academy of Medicine.

Far-reaching and vital changes that impend in the organization of the nation's health care were fore-shadowed in the facts presented by 3 authorities, members of the Committee on the Costs of Medical Care, although it was stated that *no final conclusions* should be drawn until the Committee makes its final report this coming autumn; and that report, it became apparent at the meeting, is being awaited with great interest by both laymen and practitioners.

The speakers at the meeting, and their topics, were:

Richard M. Smith, M.D., of Boston—"Outstanding Facts from the Studies of the Committee on the Costs of Medical Care."

Allen Peebles, Ph.D., of Washington, D.C.—"Unevenness of Distribution of the Costs of Medical Care."

Nathan B. Van Etten, M.D., of New York City—"Social and Economic Problems Facing the Medical Profession."

Dr. John A. Hartwell, President of the Academy, presided at the meeting. The enormous mass of data accumulated by the committee, as was brought out by the speakers, revealed the following unsatisfactory conditions urgently requiring attention, both in the interest of the general public and for the sake of the physicians, dentists, nurses and the rest of the million and a half people engaged in the \$3,000,000,000 health industry:

(1) All the people do not obtain all needed care (quantitatively or qualitatively), particularly in disease prevention services.

(2) *Cost is unevenly distributed* among the people, causing hardship to some while others pay little or nothing. (Because of the unevenness of incidence of illness, individual family budgeting of expenditures cannot solve this problem either for people of moderate means or for people of low economic status.)

(3) *Incomes of practitioners* are frequently so uncertain, irregular and low as to constitute a grave problem.

(4) *Present methods* of providing and paying for medical service are wasteful.

Provision of adequate *medical service is quite as essential* to public welfare as *is public education*, was one point made by the speakers, who further stressed the need for concerted action by the practitioners and the general public to remedy present unsatisfactory conditions. For the first time, they publicly presented to the Academy such findings as have thus far been obtained by the Committee on the Costs of Medical Care

in its exhaustive investigation, but while the facts revealed indicated that all is not well with the present provision of medical care, no specific recommendations were made on behalf of the committee. No conclusions, it was pointed out, can be drawn until all these studies have been completed, and then the committee's final report, which will probably be ready by next November, will contain specific recommendations based on all the evidence.

Dr. Smith outlined the work of the committee since its formation in 1927. The Chairman of the Committee on Cost of Medical Care, Dr. Ray Lyman Wilbur, Secretary of the Interior in President Hoover's Cabinet, formerly Dean of the Stanford University Medical School, President of the American Medical Association, and President of Stanford University; which last mentioned position he still holds but is on "leave of absence" to serve his country and profession.

The committee's purpose is to study the problem of "the delivery of adequate, scientific medical service to all the people, rich and poor, at a cost which can be reasonably met by them in their respective stations in life". It includes 16 physicians in private practice; 6 representatives from the field of public health; 12 representatives of medical and dental schools, hospitals, nurses and the American Medical Association; 6 professional economists; and 10 representatives of the public.

Its investigations are conducted by a research staff, with headquarters in Washington, under the direction of Dr. Harry H. Moore. Medical associations and other professional organizations are cooperating in the work.

Funds for the undertaking have been furnished by the: Carnegie Foundation; Milbank Memorial Fund; Russell Sage Foundation; Twentieth Century Fund; Julius Rosenwald Fund; Rockefeller Foundation; New York Foundation; and Josiah Macy, Jr., Foundation.

Health workers. There are about 130,000,000 cases of disabling illness in the United States each year and an equal number of illnesses not producing disability, Dr. Smith pointed out. To care for the nation's health, there are a total of 1,481,000 workers; including 143,000 physicians; more than 67,000 dentists; 200,000 trained nurses; and 100,000 pharmacists.

Studies by the committee, Dr. Smith said, including exhaustive investigations of all health activities in: Franklin County, Vermont, a typical New England community; Shelby County, Indiana, a mid-western agrarian district; San Joaquin County, California, a far-west rural and urban area; and Philadelphia, a typical large city; have revealed such significant facts as will now be noted.

(1) Physicians receive only 1/4 to 1/3 the total expenditure for health care.

(2) The amount of money spent for drugs and medicines is high.

(3) Public health work obtains only a small allocation of funds.

Health of poor suffers. As illustrative of conditions, Dr. Smith quoted from the Vermont Survey report: "The common belief that the poor receive all necessary medical care is not supported by facts, in spite of extensive provision of free services by physicians, and in spite of expenditures for indigent persons by towns. The group which suffers most is composed of people with small resources who desperately attempt to maintain financial independence. Because they are unable to pay doctors or dentists, they postpone seeking medical advice and attention."

Dr. Smith went on to describe the various experiments that have been tried for delivering medical service to the people more thoroughly and efficiently; describing organized medical service provided by industrial organizations, and citing the committee's study of the Endicott Johnson Workers' Medical Service as a highly developed example.

Municipal doctor. He also described the experiment, studied by the committee, of certain rural communities in the province of Saskatchewan, Canada; which attacked the problem of obtaining good medical care for citizens by employing or subsidizing medical practitioners as "municipal doctors". That system, Dr. Smith commented: "Does not of itself completely solve the problem of distributing more equably the total costs of medical care in a community. Such distribution could be accomplished only by embracing in the system provision for complete medical care, including nursing, dentistry, and hospitalization, even if obtained from outside the municipalities. At present, the most expensive illnesses—those requiring major surgery and hospitalization—are borne by a few individuals or families, except as concerns indigent persons whose medical costs are met from community funds."

He also touched on organized medical service developed in connection with schools and universities, now being studied by the committee; special facilities some hospitals are beginning to provide for people of moderate means; methods of payment for medical services by distribution of the expense over large groups of people and over long periods of time, likewise to be reported on soon by the committee; and "group clinics" formed by physicians themselves.

Costs of medical care are uneven. Costs of illness, including all types of service, to 4560 families, residing in 11 states and 2 cities outside those states, and representing a wide range of economic and social groups, were cited by Dr. Peebles to show how unevenness in the distribution of costs of medical care throws a badly-adjusted burden on the community. His figures showed that in the income group from \$2000 to \$3000, less than 1/3 of the families bore 3/4 of the burden of the cost of illness; and 9% of the families had to spend 1/10 of their annual income—in many instances much more—for medical service. In other groups, similar uneven distribution was shown.

Evil effects of uneven distribution. The following results of the "uneven incidence of illness and consequent uneven distribution of the costs" of medical care, were listed by Dr. Peebles:

(1) *Effects upon the professions and institutions providing service.* (a) Increase in the amount of charity work performed by physicians, dentists and hospitals. (b) Reduced fees. (c) Increased attention to business details making inroads on the professional time of the practitioner. (d) Lowering or standard of living of practitioner because of reduced income.

(2) *Effects upon the public.* (a) Postponement of needed medical care. (b) Necessitating that patients ask for free services or reduced fees. (c) Exhaustion of savings and piling up of debts by some patients. (d) Insufficient total funds for maintaining adequate medical care for all, because too few bear the burden. (e) Undue criticism of the medical profession by patients who bear the brunt of costs.

Twentieth century society, 19th century practices. In an address giving some striking personal reflections upon the medical scene, Dr. Van

Etten said that the medical and allied professions, scientifically developed to the utmost degree, trail far behind the times in their social and economic relations with the public. He reviewed the contrasts between 19th and 20th century medical practice, and pointed to developments of vast import which he predicted will change the entire aspect of health care of the nation. He said, in part: "Physicians practicing in the last-half of the 19th century were still real individualists, holding outstanding leadership in their communities—highly respected—consultants on every problem of family life—receiving small fees or no fees or fees in kind, such as chickens, eggs or potatoes—and suffering little competition from specialists. But, the science of medicine has developed much more rapidly than the art and application of medicine, and reactionaries have dug their heels deeply into the soil of tradition, and resisted modern change with every conservative argument."

Health advertising by everybody except doctors. The 20th century, Dr. Van Etten went on, has seen a tremendous development of sectarian groups of practitioners, who have gained public confidence to the extent of taking a total of \$125,000,000 annually for their services. There has also appeared a tremendous volume of national advertising on health subjects, by commercial and professional groups, some of it helpful but much of it misleading—"while the conservative traditions of our profession are restraining greatly needed, educational, group-advertising by honest and conscientious physicians".

"The 20th century is staging a most remarkable development of public consciousness of the vital importance of individual and community health," Dr. Van Etten continued, "and the dictum that—*public health is purchasable and any community may, within certain limits, determine its death rate*—has, through continued reiteration, been accepted, not only as basic fact but also as an ultimate goal. The medical profession cherishes the ideal of lower mortality and lower morbidity as its highest possible accomplishments."

Describing some of the multitudinous lay and professional groups, "all seeking basic facts and practical methods for the promotion of happiness and prosperity through public health", he said that there should be some coördinating machinery, for these educational agencies, to disseminate the facts. "Physicians are the *servants of the sick*, and the sick must be guaranteed *good servants*; but physicians are the *poorly-paid servants of the sick*, and their sick *employers are traditionally improvident*—taking no account of tomorrow's need through accident, or infection, or family increase, or the decadence of age."

Public demands "Front". All these difficulties are further complicated by the expense of a medical education, cost of equipment, and demand that physicians maintain expensive "front", Dr. Van Etten went on: "I have not the slightest desire to prescribe a formula", he concluded, "but I believe that the average net incomes of physicians and the general satisfaction of the people of this country would be greatly improved by close organization and intensive development of all health elements under active medical leadership".

"The Committee on the Costs of Medical Care has no panacea for the economic wastes of sickness, but it is to be hoped that its collective data will, of itself, compel solutions; which will promote sound advances in intelligent service to all classes of people; and maintain high moral and material standards for the medical profession."

Public Relations

THE GRIEVANCE COMMITTEE

(Continued from last month's Journal)

There are, therefore, 3 official bodies charged with disciplining physicians for conduct that is either unprofessional or criminal:

(1) *State Department of Education*—the Regents, who issue licenses to practice.

(2) *Attorney General*—who is concerned with criminal acts committed by physicians, in their professional practice.

(3) *Grievance Committee*—which is concerned with professional standards applying to physicians under charges.

Description of the regular course of events following charges against a licensed practitioner of medicine will help a doctor to understand the procedure of the Grievance Committee.

Charges may be brought by any person against a physician. They are to be made in writing and signed by the complainant and sent to the Secretary of the Grievance Committee, Dr. Harold Rypins, Educational Building, Albany, N. Y. Dr. Rypins is also Secretary of the Board of Medical Examiners, and is, therefore, familiar with the methods of *granting* licenses, as well as their *revocation*.

The Secretary gives due consideration to the complaint and makes a preliminary investigation sufficient to disclose the importance of the complaint; and if he finds it to have a legal basis, he refers it to the Attorney General for an opinion. If the Attorney General decides that the charges warrant further consideration, they may be referred to the Grievance Committee. There has never been friction between these two official bodies, for the Attorney General is concerned with the criminal phases of the complaint and with the securing of legal evidence; while the Grievance Committee is concerned with the interpretation of the medical practice act. Each body, therefore, supplements the other, but the Grievance Committee fills a need that has never before been supplied.

The Grievance Committee is a legal tribunal which may compel the attendance of witnesses; but it may also hold informal hearings, which often lead to amicable settlements when formal hearings in public would only irritate the parties. Informal hearings also enable the Committee to decide when an action of a formal nature should be brought, for the attitude of the accused is a vital factor in every case. The Committee represents, therefore, not only the *medical profession* but also the *people of the state*.

The law also makes provision that in cases of dispute between individual doctors, the Committee may act as a court of arbitration when requested by both parties; and in this case, the decision is final and no appeal from it may be taken.

Physicians should understand that merely calling the attention of the Grievance Committee to an alleged irregularity is not sufficient to set its machinery in motion. The Grievance Committee acts only on complaints referred to it by the Regents; and the Regents usually obtain an opinion from the Attorney General's office as well as from the Grievance Committee.

Many complaints sent to the Grievance Committee properly belong to the County Medical Society. Physicians sometimes charge their medical

brethren with unwise acts in which no law is violated, and which, therefore, do not come within the jurisdiction of the Grievance Committee, nor the Attorney General, nor the Department of Education. Examples of such complaints are: Inserting advertising cards or announcements in the newspapers; accepting salaried positions with corporations; continuing to treat patients referred for consultation only.

Such actions as these come within the jurisdiction of the county medical society. The physicians practicing in the county are familiar with local customs and the temperaments of all persons concerned with the complaint, and can make decisions more wisely than those connected with any outside organization. It is much better that a county society should exercise its own liberal prerogatives and opportunities in disciplinary matters, rather than pass them on to a higher tribunal, which is governed by the strict provisions of the statute law.

The Grievance Committee has been a success in giving *medical points of view* to the representatives of the Department of Education and the Attorney General, in the application of legal principles of disciplinary actions against physicians.

DISTRICT HEALTH OFFICERS NAMED FOR 3 AREAS

(From Newark Evening News, Feb. 12, 1932.)

The State Department of Health announced today the assignment of district health officers to 3 of the 4 new districts created this year in addition to the 2 previously in operation.

Clyde R. Newell will be in charge of the north-eastern district embracing Bergen County and will have offices at 241 Main Street, Hackensack. Passaic County will be added to the district later. David C. Bowen, of Asbury Park, former State Director of Health, will be in charge of the south-eastern district, with an office at 6 East Washington avenue, Pleasantville.

The third, or central, district will be in charge of Dr. A. B. Rosenberg, of Jersey City, with headquarters at 22 Division street, Somerville. The district comprises Somerset and Hunterdon counties. Eventually it will take in Union and part of Middlesex.

QUACK CANCER CONCERN LOSES SUIT

From Davenport, Iowa, the Associated Press, gave out a "news item" on March 3, as follows: "A verdict in favor of the American Medical Association was returned today by a Federal Court jury, in the \$500,000 libel suit filed by Norman Baker, of Muscatine."

COMPENSATION INSURANCE

(Editorial in New York Times)

Governor Roosevelt has recommended the findings of the Committee on Workmen's Compensation Insurance to the prompt attention of the Legislature. The members of the committee are well qualified for the study of conditions prevailing under the present compensation law. They have been investigating its workings for a year, and are convinced that in many respects its administration is out of line with its intent. *Their inquiries among hospitals and physicians* led to the

belief that the insurance companies are not interested in the welfare of injured workers but are extremely ingenious in devising methods of *increasing their own gains*. It was certainly not the purpose of the law to put the cost of caring for insured workmen on the public nor on charity, yet it has become a habit to remove cases from the care of hospitals and physicians, whose bills would be paid by the insurance companies, to charity wards or clinics where the cost is borne by the community.

Clinics maintained by the insurance companies are complained of by patients, responsible physicians and hospitals. An injured workman, rushed to the nearest hospital, is removed to the insurance company's private clinic. Records of his case are kept, not by his own or a disinterested doctor, but by an employee of the company. In contested cases the patient has no evidence except that of the company's clinic. When he is discharged and required to appear for treatment and examination at intervals, it is usually difficult for him to reach the clinic. If he fails to come regularly for his appointments, the company makes his non-appearance a pretext for discontinuing payments.

A series of clinics under state supervision would remove the necessity of care by company clinics. The committee hopes for their establishment and recommends a fine for company clinics "lifting" cases from hospitals. Other changes in the law should be made. It should cover all occupational diseases instead of the limited number now provided for. "Total disability" should be defined. A medical commission of disinterested experts should be formed to give the final decision on controverted cases. These suggested changes in the law itself are needed. The addition of safeguards in its administration are not less important.

ITS OWN EXCUSE FOR SEEKING

(Editorial, New York Times, March 20.)

A beautiful young woman, rich and fashionable, was asked by the maker of a certain product to endorse his cosmetic. She was as honest as she was beautiful, like the princess in the fairy tale, and replied: "If your skin is broken out, a doctor might be able to help you, and if your face is dirty you should wash it with soap and water, and when you get old it is going to fall down on your chest, no matter what you do." The manufacturer thought her unbearably particular, and got a homelier girl to write an endorsement for him.

Some women are naturally so lovely in appearance that they can appear before breakfast "without war paint, yet ready for action", as William McFee said of one of his heroines. Perhaps they exist mostly in novels. At any rate, millions of American women spend millions of dollars every year with the "beauty racketeers", as Thyra Samter Winslow calls them in "The Skin Food Skin Game", written for The New Republic. Her article is slightly critical in tone, even resentful in spots. She is sorry to see women throwing away money on creams which will not remove wrinkles and lotions that will not restore the freshness of youth, though the manufacturer of those articles definitely makes such claims. High prices for cosmetics costing only a few cents are indefensible, especially as the ingredients are easily obtained and mixed. Few creams contain poisons these days, though there are some that still avoid purity.

But women do not bother to investigate. They buy an expensive cream in a graceful jar or bottle and pat it happily on their faces, confident that it is going to correct and prevent all the defects the human countenance is heir to.

What most critics of cosmetics and the absurd claims made for them overlook is the psychologic effect they have. If a woman goes to a party with her face clean but unadorned, she spends a miserable, self-conscious evening. But if she strokes it with cream, rubs it with lotion, lifts it with massage, pats it with powder and applies a ruby flush in a way that pleases her, she will have the consciousness, more consoling than religion, of looking her best. She may have gone in debt to get the permanent wave, the anti-fat remedy may be ruining her digestion, and the total effect of her appearance may be startling rather than beautiful, but she is satisfied. To her it is all worth the money.

MEDICAL COSTS

(Editorial from New York Times)

Secretary Wilbur, himself a doctor, in his address on Thursday night speculated a little about the future development of medicine and public health in the United States. The Committee on the Costs of Medical Care, of which he is chairman, has been for 4 years studying the present unsatisfactory conditions of providing and paying for medical service. While its final report will not be made before next Fall, the main factors which enter into the problem have been clearly defined.

What is being done by way of preventive medicine and health education, both by public agencies and private organizations, has relatively lessened the burden upon the individual. But, though it is now possible to predict with a fair degree of actuarial certainty the incidence, duration and severity of the illnesses which a group may be expected to undergo, no definite prophecy can be made for the individual. It is this uncertainty that presents the "psychologic barrier" to saving money for medical care. What will be needed for any one individual or family is unpredictable. Despite savings, it cannot be known that they will be adequate. A serious illness involving hospitalization and special nursing as well as the expert services of one or more physicians may quickly bankrupt one who is able to save against normal illnesses.

Information already in hand indicates clearly that not all the people obtain all the care which they really need; that the cost is unevenly distributed, some undergoing hardship, while others have no sickness handicap; that the incomes of practitioners are frequently so "uncertain, irregular and low" as to constitute a grave problem, and that our present methods are, from the social point of view, "wasteful and uneconomic".

This cost is not too great for modern society, but there is as yet no definite indication how the effort is to be organized and coordinated. Most European countries have adopted some form of governmentally supervised sickness insurance—"voluntary in a few instances and compulsory in the remainder"—the people looking to their central government to protect them against the hazards of sickness. "We have no tradition", said the secretary, "that impels us to consider health matters as a Federal concern". That effort must find its practical way to a solution in the "laboratories" and "experiment stations" of the states, cities or

counties. The report of the investigation of the committee, in which \$1,000,000 has been spent and nearly 5 years of time, ought to be of great significance.

HE PAYS

(From St. Louis Post-Dispatch.)

He is a pompous, choleric old chap at times, and one can find a lot of things for which to point an accusing finger at him in his backyard, but he has his points. He does not whine, and he never "welches", and, without preaching it very much, he has practiced the philosophy of the copybook maxim that honesty is the best policy. The old boy pays. The going has been pretty rough lately, still, when he wanted to borrow a couple of hundred million dollars last summer, our bankers were glad to accommodate him. They knew their man. Things are a bit easier with him now, and what does he do? Characteristically, he pays. He has paid \$150,000,000 of that loan. His name and home address: John Bull, London, England; familiar figure in all the capitals and most of the crossroads of the world; involved in pretty much all the crises of history and somehow or other contriving to muddle through.

HIGHER THAN EVER

(Editorial in Atlantic City Press, Oct. 21, 1931.)

Hard times may have lessened the number of motorists in the United States, but the number of traffic fatalities continues to go up.

Figures compiled by the Travelers Insurance Company show that more than 24,000 people were killed in automobile accidents in the United States during the first 9 months of this year—the largest number ever recorded for a similar period. If the rate is continued until the end of December, the total fatality list for the nation in 1931 will be around 35,000. Last year, it was 33,000. (This prophecy was fully verified.)

A more damning indictment of our present methods of handling automobile traffic would be hard to find. The worst of it is that, as usual, we shall probably talk a great deal about it—and do absolutely nothing. And next year the death list will be higher than ever. (There has been a steady increase at the rate of 10% per annum for the past 10 years, so we can safely predict the killing of 38,500 citizens of the United States, by automobiles during this year—1932.—Ed.)

School Health Department

WEIGHING AND MEASURING

Allen G. Ireland, M.D.,

Director of Physical and Health Education,
State Department of Education,
Trenton, N. J.

The program of weighing and measuring, as recommended and approved by health education leaders of today, is based upon several years of careful scientific research. The introduction of weighing and measuring into schools was accompanied by the use of height-weight-age tables as the chief means of cataloging a child as "underweight", "normal", or "overweight". Even though

a comparatively small child seemed plump and possessed other evidences of good health, a tendency persisted to adhere dogmatically to the opinion that malnutrition existed if the tables so indicated. As time passed by, more attention was paid to individual differences, and opinions were expressed to the effect that children of the same age and height might reasonably be expected to vary in response to the operation of hereditary factors.

The conception of a weight zone, within the confines of which variations might reasonably be expected, was employed as a second method of interpreting weight. The lower level of this zone was bounded by 7% below, and the upper level by 20% above, the averages of the height-weight-age tables. This method, less dogmatic and less arbitrary than the former one, presented a more accurate picture of the individual.

Eventually, the reliability and validity of the 2 methods in common use for judging nutritional status were seriously questioned. Research was instituted for the purpose of securing scientific information upon which to base opinions relative to nutritional status. Certain conclusions reached are as follows:

(1) Weight is but one factor in judging nutritional status, and should not be used for the purpose of classifying children as under or over weight. The physician is the person from whom such a diagnosis should be sought.

(2) Use of the height-weight-age tables for judging the nutritional status of children is unreliable except when used by a medically trained person, and then in conjunction with other indices of malnutrition.

(3) Regular weighing by the teacher or nurse is desirable. Emphasis should be placed on growing rather than on percentage underweight. The child's interest in growing provides an invaluable incentive leading toward the adoption of healthful practices.

(4) If, over a period of 2 or 3 months, a child fails to gain, this should be brought to the attention of the school health authorities, and through them, to the parents.

To some, this radical change in interpretation of weight will come as rank heresy. Assurance, based on extensive practical application in schools, is offered that the ultimate reaction will be a hearty endorsement of a method both positive and constructive in its approach. With growth as an objective, the convalescent, the typically underweight, the potentially small, and the normal child, are challenged equally to adopt a schedule of living which will result in regular and continuous growth through the developmental period.

References: Readers interested enough to dig deeper into these matters will find the following references of value: *Physical Measures of Growth and Nutrition*, Raymond Franzer, Ph.D.; *School Health Research Monograph Number II*, American Child Health Association, 450 Seventh Avenue, New York City; *Weighing and Measuring School Children*, C. E. Turner, Dr.P.H., Reprinted from the June 1931 *Journal of Outdoor Life*; *Weighing School Children and Nutritional Status Measurement*, Anne Whitney and George Truman Palmer, Dr.P.H., American Child Health Association, 450 Seventh Avenue, New York City.

State Health Department

LABORATORY EXAMINATION OF SPECIMENS FOR HEMOLYTIC STREPTOCOCCI

J. Lynn Mahaffey, M.D.,

Director State Department of Health,
Trenton, N. J.

The Bureau of Bacteriology, in the State Health Department, frequently receives specimens from physicians accompanied by a request that the specimens be examined for presence of scarlet fever streptococci, and for this reason a statement as to the present status of this test, and its application to the diagnosis of scarlet fever, seems timely.

For many years it has been quite generally believed that a close relationship exists between certain hemolytic streptococci and scarlet fever, either as the causative organism or as a secondary invader. Much experimental work had been done with this streptococcus by numerous workers, from the production of therapeutic serums up to attempting transmission of the disease to animals, but it was not until the work done by the Dicks—who were able to demonstrate the production of a specific toxin with pure cultures of a hemolytic streptococcus isolated from scarlet fever patients, and who reported experimental scarlet fever produced by inoculations of human volunteers, and their development of the Dick skin test using dilute toxin of the scarlet fever streptococcus—that definite knowledge of the suspected relationship of the streptococcus to scarlet fever, was actually proved.

This knowledge has resulted in application of the Dick test for determining susceptibility and immunity to this disease, and the use of graded doses of scarlet fever toxin for conferring immunity to scarlet fever in those individuals found by this test to be susceptible. This toxin is also used to immunize horses, by repeated injections, for the production of scarlet fever antitoxin.

With recognition of a hemolytic streptococcus as the incitant in scarlet fever, it was hoped by public health officials that identification of the specific hemolytic streptococcus by some practical laboratory procedure might be developed to assist in the early diagnosis of scarlet fever in early and obscure cases of this disease, and the earlier termination of quarantine by determining freedom from infection as in the case of diphtheria. But, as a result of further work with hemolytic streptococci from cases of erysipelas and septic sore throat, by Miss Mary Kirkbridge, in the Division of Laboratory and Research of the New York Health Department, and by Dr. Anna Williams, of the Research Laboratory of the New York City Health Department, and others, the conclusion has been reached that toxin is produced by hemolytic streptococci from those conditions that give skin reactions similar to those obtained with toxin from the hemolytic streptococcus of scarlet fever. They also report variable skin reactions in different individuals, indicating that the human skin test cannot always be relied upon for differentiating scarlet fever strains of hemolytic streptococci from strains of hemolytic streptococci from other infections.

At present, because it is not possible by any practical laboratory procedure to distinguish one

from another, among the strains of hemolytic streptococci from erysipelas, septic sore throat and scarlet fever, specimens from these conditions submitted to the Bureau of Bacteriology for examination are of value only to determine the presence of hemolytic streptococci. However, this laboratory is prepared to examine specimens for the presence of hemolytic streptococci when such a request is made.

Specimens from suspected cases of scarlet fever and septic sore throat may be collected from the throat and nose in the same manner as for a diphtheria examination, using the sterile swab in the mailing case supplied by this Department for the collection of diphtheria specimens. The *history slip* in the mailing outfit accompanying the specimen *should be plainly marked* to indicate that an examination for *hemolytic streptococci* is desired.

Communications

AUTHENTIC FIGURES ON NATION'S DRUG PURCHASES

(Authorized for release by the Committee on the Costs of Medical Care, Washington, D. C., Dr. Ray Lyman Wilbur, Chairman, and Dr. H. H. Moore, Director.)

The people of the United States spend \$715,000,000 annually for drugs and medicines, which constitutes about 20% of the national bill for sickness. Of this amount, \$190,000,000 (26.6%) is spent for medicines prescribed by physicians; \$165,000,000 (23.1%) for non-secret home remedies; and \$364,000,000 (50.3%) for "patent medicines" of secret composition. These facts are brought out in a report just issued by the Committee on the Costs of Medical Care, of which Dr. Ray Lyman Wilbur is chairman.

This report—"The Costs of Medicines"—published by the University of Chicago Press, discloses authentic figures on the drug industry in this country obtained through a 3 years' study on the subject made for the Committee on the Costs of Medical Care by Dr. R. P. Fischelis, Vice-President of the American Pharmaceutical Association, and Dr. C. Rufus Rorem, formerly a staff member of the Committee. In November, this Committee will issue its final report, which will include recommendations based on its exhaustive 5 years' study into the problem of "the delivery of adequate, scientific medical service to all the people, rich and poor, at a cost which can be reasonably met by them in their respective stations in life."

U. S. FAMILIES SPEND \$22 ANNUALLY FOR DRUGS

It was discovered that the average expenditure for medicines is approximately \$22 annually per family of 4 persons, or \$5.50 per member. Actual expenditures per capita vary widely, however, and tend to be highest in the cities. Other important facts this survey disclosed include the following:

(1) Patients attempting to diagnose their own ailments, by comparing their symptoms with those described in patent medicine advertisements, frequently forego proper medical attention until it is too late to effect a cure.

(2) "Official" medicines can usually be purchased by the pharmacist for a fraction of the

price of proprietary medicines or ethical specialties, with a corresponding reduction in price to the patient.

MERCHANDISING ACTIVITIES MAKE REGISTERED PHARMACISTS AVAILABLE

(3) Provided they were engaged in no other pursuits, approximately 10,000 pharmacists could fill the 165,000,000 physicians' prescriptions now annually filled by 115,000 registered pharmacists in 60,000 drug stores. Limiting the compounding of prescriptions to 10,000 pharmacists in as many drug stores, however, would leave many communities without pharmacists and in larger communities would spread the number of pharmacies, making it inconvenient for the public to obtain prompt prescription service. Merchandising activities of drug stores, frequently derided, make the services of registered pharmacists available and more convenient to the public.

(4) Although regulations governing the pharmaceutical profession are strict enough, the privileges of unlicensed persons operating outside of pharmacy are so extensive that the public enjoys little protection in the sales of packaged medicines.

(5) While self-medication is increasing, there is not available sufficient information on which the public can base its judgment as to what type of medicine may safely be used for the treatment of simple and minor conditions.

\$1.50 PER CAPITA ANNUALLY EXPENDED THROUGH DOCTORS

(6) Drugs prescribed or dispensed through doctors do not constitute a large portion of the total costs of medical care. Physicians' prescriptions plus the drugs dispensed in doctors' offices average approximately \$1.50 per person per year.

"It is significant", the report reads, "that the costs of medicines to patients are still lower when the conditions of treatment permit a physician to prescribe only such medicines as he considers necessary to good results." Such conditions exist, according to the report, where medical service is rendered on an "annual" rather than a fee basis, as in industrial or university health services.

MILLIONS WASTED ON PATENT MEDICINES

Few of the so-called "patent medicines" are actually registered as to ingredients and granted patents from the United States Patent Office. Most of them are protected by trade names which become, through registration and usage, the property of the manufacturer or distributor. The formulas are secret. The report states that "so long as secrecy of composition is permissible for medicines offered for self-medication, and so long as the public is kept in ignorance of the proper uses and value of common drugs, the quack will find some method to ply his trade."

Expenditures for fraudulent cures range from \$15,000,000 upward each year.

RECOMMENDATIONS MADE FOR FUTURE OF PHARMACY

The authors made 4 recommendations based on their survey for the Committee on the Costs of Medical Care. They are:

(1) Secret-formula drugs and medicines should be abolished through the compulsory disclosure on the label of the kind and quantity of medicinal ingredients. Those developing new and distinct preparations should be financially protected by appropriate privileges granted by a disinterested agency.

(2) All manufacturers of drugs and medicines

should be required to operate under annual licenses to be granted by the federal government upon the fulfillment of satisfactory conditions with regard to competency of personnel, equipment and sanitary surroundings, and standardization of finished products.

(3) Agencies should be established to prepare and disseminate accurate information concerning the proper use of home remedies appropriate for self-medication with the aid of a committee of physicians and pharmacists of unquestioned reputation and standing. Universal and unnecessary use of self-prescribed medicine should be rigorously discouraged.

(4) Professional knowledge of pharmacists should be used more adequately by reducing physicians' reliance on branded products; by permitting pharmacists to instruct drug store customers in proper use of medicines purchased for self-medication, but not to the extent of diagnosing ailments or recommending medicines; by the pharmacist distributing information dealing with medicines and hygiene prepared by health departments; and by supplying information to the public concerning physicians and hospitals on the basis of data provided by local medical or hospital associations.

SOCIAL INSURANCE: MOST GOVERNMENTS ARE INEFFICIENT OR CORRUPT

(Fourth of a series of letters prepared and issued by Edward H. Ochsner, M.D., of Chicago.)

The founders of our government subdivided it into 3 branches: administrative, legislative, and judiciary. This was done on the theory that each had a distinct function to perform and that they would all act somewhat as checks and balances upon each other. This seemed logical at the time and undoubtedly has many advantages, but our founders did not and could not foresee one of its dangers and one of the abuses to which this division was to be put; namely, the practice of side-stepping duty and responsibility. One of the chief governmental in-and-outdoor sports today is "passing the buck", with an "open season" the year round.

In a project involving so many problems as does Social Insurance, all branches of the government would be involved in its execution—the legislative in enacting the necessary laws, the administrative in administering them, and the judiciary in adjudicating them. Let us then examine briefly how the different branches have comported themselves in the more recent past. Let us start by examining just one typical administrative activity of both the federal and the state government.

Individual members of the medical profession have repeatedly called attention to the great need of a careful study of all delinquents and criminals in our state and federal institutions in order to determine the mental and physical condition of each member of these 2 classes with a view to their rehabilitation and possible reclamation; and yet, almost nothing has been accomplished along these lines by governmental agencies. Dr. Frank L. Rector, who recently completed a survey under the

auspices of the National Society for Penal Information on health and medical work in all state and federal prisons and adult reformatories, states unequivocally that in not one of these institutions is there a well-rounded, balanced, medical and health program. While some of them provide acceptable accommodations for care of the acutely sick or injured, there is little or no provision for the rehabilitation of the physically handicapped so that they will be better equipped for earning an honest living after their discharge back to civilian life.

Just one typical example. On the day Dr. Rector visited the Ohio State Penitentiary, there were 4475 prisoners within its walls, of which number 156 were hospitalized. There was but 1 physician on the staff; all other attendants at the hospital were prisoners. While the physician was nominally on a full-time basis, he was carrying on an outside private practice because his salary from the state was insufficient to meet his living expenses. What can 1 part-time physician accomplish with that many patients, a large percentage of whom are physically handicapped, mentally abnormal, and emotionally maladjusted? Ohio is a fair example. In most of the other penitentiaries, and in the federal prisons, conditions are no better and in some even worse.

Now let us investigate some of the legislative problems. While nearly every legislative body contains some men of outstanding ability, the great majority of legislators have not the slightest conception of what is required of their positions and blindly follow their party bosses who are not generally known for their altruism, their patriotism, or a burning desire to promote the public welfare. One of the worst features of our legislative activities is the fact that a small, well-organized and insistent minority can usually get its measures enacted into law, unless some other group is adversely affected by the proposed legislation and makes a counter-attack.

Another bad method of securing legislation is the system of trading. An interesting occurrence of this sort happened in the state of Illinois in 1923. About that time a Chicago mayor was disgracing not only his city and state but the nation by the slogan—"Hit King George on the Snoot". A free citizen from the corn lands of the state decided that he would like to be sent to the state legislature, took up the battle cry, had just 1 plank in his platform; namely, to make the American language the official language of the state. He was elected. By use of extensive vote trading he secured the passage of the following:

OFFICIAL STATE LANGUAGE

An act establishing the American language as the official language of the State of Illinois. (Approved June 19, 1923. L. 1923. p. 7.) Preamble. 177. (American language.) (1) Be it enacted by the people of the State of Illinois, represented in the General Assembly:

The official language of the State of Illinois shall be known hereafter as the "American" language.

So much for administrative and legislative inefficiency. The next article will take up the judiciary.

(To be continued)

THE CHILD HYGIENE NURSE

(We received a few days ago, a letter from Dr. Julius Levy, accompanied by 2 pamphlets explaining the working of his plans regarding Child Hygiene Nurses, and, the Medical Care of Babies; and requesting an opinion as to the advisability of distributing the pamphlet concerning the babies, through the physicians to mothers, and as to whether the pamphlet concerning the nurses does justice to the family doctor. This publication of his pamphlets may be taken as our approval thereof, and we hope our readers—who are in better position to do so—will answer the question regarding distribution.—Ed.)

THE CHILD HYGIENE NURSE

Who is she? A registered graduate nurse with special training in Child Hygiene.

What value to the community? The most effective time to protect the health of the child is during the pre-natal and early infancy period. Through its Child Hygiene Nurse the community arranges for proper protection of this early period and carries this service through the pre-school and school period.

One nurse through a single visit in a family is able to instruct the mother in pre-natal hygiene, the care of a young infant, and the importance of correcting defects in children of pre-school and school age.

Instructs in principles of hygiene. The nurse's monthly visits to the home are for the purpose of emphasizing the importance of keeping the well baby well. It has been found by experience that this can be done best by having the baby under regular medical supervision of the family physician. The baby should be examined by the doctor at least once a month for the purpose of having him determine whether growth and development are normal, and to receive proper instruction in feeding.

Does not take the place of physician. This nurse supplements the family physician. She does not diagnose sickness, prescribe medicine nor give formulas. Her duty is to instruct the mother in the principles of hygiene so that the well child may be kept well. Upon detecting deviations from the normal development, her duty is to *insist that the child be placed under the care of the family physician* and to advise an office visit to the family doctor at least once a month. She will then teach the mother how to carry out the physician's instructions.

Conducts baby keep-well station. A baby keep-well station is conducted each week in order to watch the growth and development of the child whose mother does not make regular visits to her physician. At such stations may be seen samples of proper clothing, cribs, and materials used in the care of infants.

Supervises health of the run-about child. The period from 2 to 6 years is frequently called "The No-Man's Land" of childhood. This is the time when contagious diseases take the heaviest toll of life. About 85% of all deaths from contagious diseases occur before the age of 5 years. It is the nurse's duty to explain the importance of protection against contagious disease through immunization, and to urge the mother to consult her family physician in regard to this. It is also the nurse's duty to call the mother's attention to any physical defects present in the child and urge their correction.

Continues her contact with family through school child. Proper pre-school care will bring most chil-

dren to school physically fit for school life. The Child Hygiene Nurse continues her interest in the child by coöperating in health activities in the school. It is her duty to assist the Medical Inspector in the annual physical examinations and make the necessary follow-up calls in the home for corrections. In order to prevent the spread of communicable disease, she makes the necessary class-room inspections.

No local expense for state service. The Child Hygiene Nurse receives continuous technical supervision and instruction through the district supervisors from the State Department of Health. The nurse in the smallest community receives the same kind of professional supervision that a large group of nurses would receive in a large community.

How the Child Hygiene Nurse may be obtained. Through official request of the local Boards of Health and Education to the State Department of Health, a free demonstration will be made.

Upon request a representative will be sent to explain the work and give details in regard to the service offered.

TAKE YOUR BABY REGULARLY TO YOUR PHYSICIAN

Do you take your baby, at least once a month, to your physician for examination?

A careful examination may reveal early errors in development or growth that proper instruction and feeding will correct or might have prevented.

No baby should be deprived of this regular examination and expert medical care.

Some mothers may find it necessary to take their babies to a clinic or a Baby Keep-Well Station, where every effort is made to give competent advice.

It must be understood, however, that a mother cannot receive the detailed attention and service in a Baby Keep-Well Station, a place which must deal with large numbers, that she will obtain in a doctor's private office, where the doctor can give his undivided attention to each person.

Woman's Auxiliary

ITEMS OF INTEREST FROM THE NATIONAL AUXILIARY

In the Annual Report made recently to the A.M.A. House of Delegates by Mr. F. V. Cargill, circulation manager for Hygeia, Mr. Cargill states that our Auxiliary is the only source of Hygeia subscriptions that showed a gain in 1931 over 1930.

In addition to personal subscriptions, the Auxiliaries have sent Hygeia to state legislators; city, rural, and parochial schools; Y. W. C. A.'s, Y. M. C. A.'s; Parent-Teacher Associations; Red Cross; Visiting Nurses Associations; Libraries; Judges of County Courts; and to other places where Hygeia magazines would serve a useful purpose.

Oregon, which began its Hygeia drive following Mrs. McGlothlan's visit in November, reports that subscriptions for Hygeia have been placed in 410 schools.

In "Reciprocity Day" the large Greenville, South Carolina, Auxiliary carried out recommendations of the National Educational and Public Relations Committee, and on that day representatives of all Women's Clubs were invited to meet with the Auxiliary. Instructive addresses on the timely subjects of "High Blood Pressure"

and "Correct Posture", were given by 2 local physicians followed by interesting questions from and discussions with the audience.

The Organization and Public Relations achievements in Minnesota are worthy to be known and read by all Auxiliaries. A high percentage of Minnesota's counties are fully organized; that is, every eligible woman is enrolled. A fine item in the Public Relations report has to do with an essay contest on the subject of "Tuberculosis". To the High School boys and girls in the state, the Minnesota Auxiliary gave 2 loving cups for essays on Tuberculosis. From the 173 essays received, 10 were selected as the best. The writers of these were brought to Minneapolis, 1 at a time, and the essays were broadcast over WCCO. Much publicity was given the Auxiliary and this project through the Twin City papers. These essays were printed, widely read, and much discussed. While the Minnesota State Health Association and Tuberculosis Christmas Seal groups coöperated, yet to the Auxiliary went the credit and the work of enlisting the coöperation of High Schools and the English teachers, and the students themselves.

It is interesting to know that the State Auxiliary of New Mexico is one with the Auxiliary to the Albuquerque Medical Society. The members are getting acquainted and playing together this year; and, as Auxiliary women inevitably do in their social relations, they are no doubt forming unexpected and delightful friendships.

Herewith, is submitted the Preliminary Program of the New Orleans Convention; and all women attending this Convention are invited to participate in this entire program whether they are members of the Auxiliary or not.

WOMAN'S AUXILIARY TO THE AMERICAN MEDICAL ASSOCIATION

Tenth Annual Meeting, to be held at New Orleans, May 9-13, 1932

Headquarters: Jerusalem Temple,
1137 St. Charles Avenue

Preliminary Program

Monday, May 9, 1932

6:00 p. m.—National Board Dinner and Pre-Convention Meeting (for Board Members, only) Orleans Club
5005 St. Charles Avenue
Tickets \$1.50

Tuesday, May 10, 1932

9:00 a. m.—General Meeting..Jerusalem Temple
Mrs. Arthur B. McClothlan, *presiding*
12:30 p. m.—Buffet Luncheon..Jerusalem Temple
Tickets \$1.00
2:00 p. m.—Walk through Vicux Carre, with Guides—Starting from the Patio Royale.
4:00 p. m.—TeaPatio Royale
8:00 p. m.—General Meeting of the American Medical AssociationAuditorium

Wednesday, May 11, 1932

9:00 a. m.—General Meeting..Jerusalem Temple
Mrs. Arthur B. McClothlan, *presiding*

12:30 p. m.—*Auxiliary Luncheon. Southern Yacht Club. (12 minutes from Canal Street or Jerusalem Temple. Luncheon tickets, \$1.50; transportation, 25 cents.)

2:30 p. m.—Post-Convention Board Meeting....
Southern Yacht Club

2:30 p. m.—*Through Garden Gates; Glimpses of New Orleans.

4:00 p. m.—Teas in Private Residences.

New Orleans Country Club:

8:30 p. m.—Divertissements in the Garden.

10:00 p. m.—Buffet Supper.
Negro Spirituals, courtesy of the Woman's Auxiliary to the Louisiana State Medical Society.

Thursday, May 12, 1932

9:00 a. m.—General Meeting—Jerusalem Temple
Mrs. Walter Jackson Freeman, *presiding*
10 to 10:50; 11 to 11:50—Special Round Table ConferencesJerusalem Temple
12:00 m.—Buffet Luncheon ...Jerusalem Temple
Tickets \$1.00

1:00 p. m.—*Trip to Oak Alley Plantation; visiting Spillway; returning at 6 p. m.
(Round trip, \$2 per person)

or

2:00 p. m.—*Round trip over Lake Ponchartrain, via New Bridges.
(\$2 per person)

or

2:30 p. m.—*Trip to Versailles Plantation. Battle Field of New Orleans; Docks and Wharves (Round trip \$1 per person).

or

2:30 p. m.—*Delgado Museum and City Park; Newcomb Art School and Audubon Park (Round trip \$1 per person).

or

2:30 p. m.—*Mayan Exhibit..Tulane University
(Round trip, 25 cents per person.)

9:00 p. m.—President's Reception and Ball....
Auditorium

Friday, May 13, 1932

9:00 a. m.—*Trip to Gulf Coast—Leaving L. & N. Station at 9 a. m., returning to New Orleans at 6 p. m. (Round trip, including luncheon and beautiful scenic drive along the coast, \$6.00 per person.)

10:00 a. m.—Golf Tournament, Metairie Golf Club

*Transportation paid by individual. All trips start from Jerusalem Temple.

Bergen County

Reported by Mrs. H. B. Wilson

The Woman's Auxiliary to the Bergen County Medical Society held its meeting on March 8, at the Nurses' Home, Bergen Pines.

The President, Mrs. Joseph Morrow; the Program Chairman, Mrs. S. A. Alexander; and the Social Committee Chairman, Mrs. William Harryman; had planned a lovely "Musical Tea", at which they presented Esther Ruth Halpern, pianist, who entertained with a delightful pro-

gram: a selection by Beethoven, 2 by Debussy, 1 by MacDowell, a group of 4 by Chopin, a group of 3 by Schubert, Rubinstein and Moskowski; the final number being the Rhapsodie Hongroise, Number 11, by Liszt.

Mrs. Morrow introduced the guests from neighboring auxiliaries, among them being the State Auxiliary President, Mrs. H. Roy Van Ness.

A social time followed, with most delicious refreshments—the color scheme of green and yellow being carried out.

Essex County

Reported by Mrs. R. M. Rogers

The first big venture of the year, to swell the Scholarship Fund, took the form of an Evening Bridge Party and Fashion Show held in the restaurant of Kresge's Department Store. Some 350 people enjoyed a most delightful evening. It was especially gratifying to note how many doctors came; and all voted the evening a success.

Those who did not, or could not, play cards were provided with various other games calculated to be entertaining. At about 11 o'clock, very delightful refreshments were served and a most tuneful orchestra added much to the general enjoyment.

Most of the credit for this very successful affair belongs to Mrs. Earl H. Snaveley and her very efficient committee associates.

Gloucester County

Submitted by Mrs. Henry B. Diverty

The Woman's Auxiliary to the Gloucester County Medical Society met Thursday, February 13, at Oakwood Country Club, at 9 p. m.

Mrs. Elwood Downs, the President, was in the chair. Members present were: Mrs. Chester I. Ulmer, Secretary, of Gibbstown; Mrs. David R. Brewster, Treasurer; Mrs. William Brewer, Mrs. J. Harris Underwood, Mrs. Paul M. Pegau, Mrs. Ralph L. Moore, all of Woodbury; Mrs. Cecil C. Sheets, of Paulsboro; Mrs. W. W. Pedrick, Glassboro; Mrs. A. B. Black, Paulsboro; Mrs. Ralph Hollinshed, Westville; Mrs. Fuller Sherman, and Mrs. Henry B. Diverty, of Woodbury.

The Auxiliary is growing in membership and friendliness is increasing. Mrs. David Brewer and Mrs. Fuller Sherman were appointed at the last meeting as a committee on entertainment.

After adjournment of the business meeting, the committee kept the women highly entertained.

The doctors were holding their meeting in the same building. Their President, Dr. Downs, after the meeting had adjourned, invited the auxiliary to join them in the dining room, where a fine collation was served by the manager of Oakwood Country Club.

Hudson County

Reported by Mrs. James M. Murphy

The regular monthly meeting of the Woman's Auxiliary to the Hudson County Medical Society was held at the Y. W. C. A., on Monday afternoon, March 7, with the President, Mrs. George M. Culver, in the chair. The minutes of the previous meeting were read and approved. The Treasurer, Mrs. Perlberg, then gave her report.

The Chairman of Committee on Entertainment,

Miss Hetherington, reported a profit of \$107 from the Card Party held on January 20, to swell the funds for charity.

A letter of thanks was read, from the Sisters of St. Francis, for a contribution of \$25 to the Bread Line Fund; also a letter from the Y. W. C. A., for a contribution of \$25 to its Maintenance Fund.

Miss Buck, Director of the Red Cross Visiting Nurse Service, spoke on the work of the visiting nurse, and the necessity for and value of this service.

Mrs. Freile reported that \$14 had been sent to the Red Cross Visiting Nurse Milk Fund, being the amount collected to date and called our Emergency Fund.

The program for the afternoon was then given over to the members, and called Scrap Book Day—each member contributing bits of information, current events, essays, jokes and philosophy, in regard to the medical profession.

One new member was welcomed—Mrs. Arthur P. Trewhella.

It was voted a most interesting afternoon, and tea and a social hour followed.

Mercer County

Reported by Mrs. George N. J. Sommer

Appointment of a Nominating Committee featured the luncheon meeting of the Auxiliary to the Mercer County Medical Society held on March 15, at the Young Women's Christian Association Building, on East Hanover Street. Those named to the committee were Mrs. Alton S. Fell, Mrs. Paul J. Finegan, Mrs. Paul B. Means and Mrs. John B. Sill.

Delegates were chosen to attend the State Medical Auxiliary Conference to be held in Atlantic City, June 15, 16 and 17. They are: Mrs. D. Leo Haggerty, Mrs. James J. McGuire, Mrs. A. Dunbar Hutchinson and Mrs. Nathan Swern. The alternates include: Mrs. Francis E. Proctor, Mrs. G. N. J. Sommer, Mrs. Samuel Sica and Mrs. Fell.

The Auxiliary had as a guest, Mrs. Samuel S. Woody, of Philadelphia.

A discussion on "Some High Spots in 50 Years of Medical Progress", was led by Mrs. A. W. Atkinson, Mrs. Fell and Mrs. E. B. Bearisto. A paper on "Common Colds" was read by Mrs. William C. Ivins and discussed by Mrs. P. J. Corrigan; and Mrs. Paul J. Finegan was appointed to take charge of a book of clippings from newspapers and magazines—on medical subjects—also to keep newspaper clippings referring to the meetings of the Mercer County Auxiliary.

Mrs. Haggerty, the President of the Auxiliary, presided at session.

Monmouth County

Reported by Mrs. John C. Clayton

On Wednesday, March 9, at the home of the President, Mrs. William G. Hermann, 211 Norwood Avenue, Deal, a very enthusiastic meeting of the Woman's Auxiliary to the Monmouth County Medical Society was held.

Mrs. A. Haines Lippincott, of Camden, was the guest-speaker, her subject being "Public Relations".

After the meeting, tea was served by the hostess.

Passaic County

Reported by Mrs. Burt W. Botbyl

Passaic County Medical Auxiliary Honors Mrs. Fishbein

Forty members of the Woman's Auxiliary to the Passaic County Medical Society were present on the evening of March 8, at the Dinner, given in the grill room of the Alexander Hamilton Hotel, in honor of Mrs. Morris Fishbein, wife of Dr. Fishbein, Editor of the American Medical Association Journal. Mrs. Fishbein accompanied her husband to Paterson where he was the Honored Guest of the Passaic County Medical Society, preceding his address at the Y. M.-Y. W. H. A.

Our Guest-Artists were Mrs. Hugo Straus, pianist, and Mrs. Sarah Kaufman, soloist.

Following dinner, the women, for a short time, attended the men's meeting, after which they enjoyed bridge. Later in the evening, Dr. Fishbein spoke briefly to the group.

Mrs. William A. Dwyer, Chairman of the Committee of Arrangements, was assisted by Mrs. Jacob Roemer, Mrs. G. G. Walton, Mrs. Frank Ash, Mrs. Louis Shapiro, Mrs. Sydney Brooks, Mrs. M. Shulman, Mrs. Charles Russell, of Paterson; Mrs. James Lomauro, Mrs. L. H. Joyce and Mrs. J. H. Carlisle, of Passaic.

County Society Reports

ATLANTIC COUNTY

John S. Irvin, M.D., Reporter

The regular monthly meeting of the Atlantic County Medical Society was held March 12, in the Robert's Room of the Chalfonte Hotel, at 8:30 p. m., with Dr. Harold S. Davidson presiding, and 45 members present.

Dr. W. B. Stewart reported that the District Nurses Association had received many complaints that the 2 physicians who were to be called for "Care of the Poor" could not be reached from Saturday noon until Monday morning, and requested some provision be made for taking care of this matter. It has been arranged with Mr. Ortilp, through whose office these calls are made, that they should go through some other channel during the week-end period. It is now left with Mayor Bacharach to decide whether such calls may be made through the Visiting Nurses' offices.

Dr. Stewart also mentioned that there were 2 bills pending in the Legislature which did not concern the medical profession but did affect the dental profession, several members of which are associate members of our society.

One bill is to permit a number of women in the state to obtain licenses to treat various mouth diseases under the name of "Dental Hygiene", doing practically everything but extracting and filling, and thereby taking a large amount of work away from the dentists who should have it.

The other bill concerns professional conduct and has to do with unethical conduct of some dentists who advertise, and who promise everything in their advertisements, including many things they cannot possibly do.

Dr. Stewart stated that he hoped the physicians of Atlantic County would do whatever they could to aid the dentists in overcoming these 2 difficulties.

Dr. W. E. Darnall, of the Library Committee,

was reported by Dr. Davidson as being ill, so he reported progress for the committee; adding that the Medical Branch Library is certainly a very creditable one and should be used freely by the members.

Dr. W. P. Conaway reported that the broadcasting program is completed for this season.

Dr. W. J. Carrington reported that the Committee on the State Society-Rutgers Extension Course is more than pleased with the response to the proffered Lecture Courses; 54 members having so far enrolled. The first lecture will be held in the Benjamin West Room, of Haddon Hall, on April 6, and all members of the society are invited to attend that lecture without cost.

Two applications for membership were read: One from Dr. John J. Richardson, formerly of Washington, by transfer from the District of Columbia Society, and the other by Abraham Krechmer, formerly a Resident Physician at the Atlantic City Hospital. On motion of Dr. W. Blair Stewart, who quoted Chapter 1, Section 3, of the By-Laws, Dr. Richardson was elected to active membership, and Dr. Krechmer's application was referred to the Board of Censors.

Letters of appreciation from Drs. Lawrence and Reynolds were read, thanking the Society for conferring Honorary Membership upon them.

Letters from the Secretary of the American Medical Association and the President of the Medical Society of New Jersey, concerning the invitation of the society to the American Medical Association for the 1933 Convention, were read.

Dr. Conaway stated that he did not believe Atlantic City could expect to get the 1933 Convention but that it should work for 1934.

Dr. N. J. Quinn recommended that the Society change the Constitution and By-Laws to include provision for an Executive Committee.

A copy of the amendment is to be mailed to all members of the Society 10 days prior to the April meeting, and it will come up for acceptance or rejection at that meeting; this is, as required by the Constitution of the Society.

There being no other business, the Scientific Program was presented by Grafton Tyler Brown, M.D., of Washington, D. C., who spoke on "Seasonal Hay Fever". (Paper submitted for later publication in the Journal.)

Atlantic City Hospital Staff Meeting

Joseph H. Marcus, M.D., Secretary

The stated monthly meeting of the Atlantic City Hospital Staff was held in the auditorium of the hospital February 26, with Dr. Samuel L. Salasin in the chair.

Dr. Robert A. Kilduffe, Director of Laboratories, submitted his "Report for 1931", which differed from the typical report of a laboratory in that, besides the mass of statistical information usually given, Dr. Kilduffe presented a lengthy discourse upon the developments of laboratory work during the past 7 years. (We have not available this month the space for Dr. Kilduffe's complete report, but if we had, its publication in this Department of the Journal would scarcely be just to the author, whose report deserves better treatment.—Ed.)

Dr. Walter B. Stewart submitted his "Report for the Pediatric Service", covering the second and fourth quarters of the pediatric service of 1931. There was a normal healthy growth in the number of patients admitted; an increase of 15%—

from 96 in 1930 to 113 in 1931. Autopsy was obtained in 35% of the 25 fatalities. The 3 most frequent diagnoses made were "malnutrition", "gastro-enteritis", and lobar pneumonia. There were 13 cases of lobar in contrast with 9 cases of bronchopneumonia, but only 3 deaths among the former (3 out of 13) and 8 deaths among the latter (8 out of 9). This bronchopneumonia group would seem to have a very high mortality percentage, until we find that many were secondary to other conditions and constituted the terminal infection. Differentiation between lobar and bronchopneumonia in children is often difficult, and the tendency is to consider many as bronchopneumonia which are actually lobar. Our cases were all verified by radiograms.

Of the fatal cases of lobar pneumonia, 2 are of interest because of their complications: (1) acute hepatitis with streptococcemia, and (2) pneumococcus meningitis. The first case, a boy of 8 months, had been ill with a lobar pneumonia of the right upper lobe for 5 days, and a radiogram showed it as a resolving lesion. The day before admission an intense jaundice developed, deepening until death 4 hours after admission. There was extreme dyspnea and tachypnea, temperature of 105°, and an enlarged, smooth-surfaced liver, the lower border of which reached the level of the umbilicus. In spite of the jaundice the spinal fluid was clear and colorless. Streptococci were obtained by blood culture. Evidently, we were dealing with a streptococcal pneumonia with septicemia, and a subsequent acute hepatitis and jaundice. McMahon and Mallory have described the lesions that occur in the liver in experimental streptococcal infections in animals, as well as in man. It is clear from their observations that streptococcal infections may produce profound anatomic changes in the liver, and therefore contribute to the precipitation of jaundice in patients with streptococcal sepsis. Furthermore, in lobar pneumonia, when clinical jaundice is present, it can usually be explained on the basis of depressed function of the liver, together with an increase in the production of bilirubin. The presence of a febrile reaction and anoxemia are sufficient to account for the liver damage. The changes in the liver cells, in pneumonia, vary from cloudy swelling to actual necrosis. In pneumonia there is also evidence of an over-production of bilirubin; as the stools usually contain increased amounts of stercobilin.

The second case of lobar pneumonia was complicated by a pneumococcus meningitis. The patient was a white male aged 10 months. Onset of illness 3 days before admission, with numerous convulsions and high fever. When first seen he was very fretful, crying out on being disturbed, and had a prostrated appearance; pupils contracted; remittent fever up to 106°; and signs of lobar pneumonia in the right upper lobe. For 2 weeks there was no improvement, although the chest signs became less pronounced. Because of the persistent fever and slight rigidity of the neck, lumbar puncture was done 14 days after admission and 9 days before death. The fluid was clear, contained only 12 cells, and was sterile. A purpuric eruption appeared over both upper and lower extremities 2 days before death and blood culture was positive for the pneumococcus. On the following day, meningeal symptoms reappeared, although they had been absent since the time of the previous lumbar puncture. The fluid then contained 185 cells and an increased amount of globulin; and culture was positive for

the pneumococcus of Type IV. Death occurred on the following day. The question naturally arises whether the lumbar puncture done 9 days before death, which yielded normal, bacteria-free fluid, while the pneumonia was at its height, had anything to do with the subsequent development of meningitis through reduction of pressure and admission into the spinal fluid of organisms from the blood? Less than 1 dram of fluid was removed for the examination.

The third case is descriptive of the bronchopneumonia which complicates pertussis, except that on admission the diagnosis was obscure. The mother did not know that this boy of 8 months had suffered from whooping cough, although he had been coughing without the whoop for 3 weeks, and although another child at home had a typical case. Three days before admission he had become much worse, very dyspneic and drowsy, with high fever and several convulsions. On admission, he was markedly prostrated and slightly cyanotic. There was some rigidity of the lower extremities and of the neck, raising the question of meningitis in the mind of the Resident. However, the spinal fluid was negative; coarse râles were scattered diffusely throughout both sides of the chest; there were long, paroxysmal seizures of cough with reddening and strangling but without the whoop. The leukocytosis of 150,000, of which 70% were lymphocytes, might raise the question of lymphatic leukemia, if the clinical picture were less definite and if we did not know that some of the highest leukocyte counts seen in childhood occur in the pneumonias following pertussis. Cough and prostration increased, and he died 1 week after admission. At autopsy, a diffuse bronchopneumonia was found in both lungs.

Next to pneumonia, the most frequent cause of death was meningitis; 5 deaths out of 6 cases; 3 of the pneumococcal type, 2 meningococcal, and 1 of type undetermined. The meningococcus proved fatal in an infant aged 2 months, but a cure was effected in one aged 4 months. The child had been bottle-fed since the age of 6 weeks, and had always been well, but 3 days before admission she became feverish, vomited several times, and was extremely fretful. There were no convulsions, though on admission she lay in a stupor, with glazed eyes, and a temperature of 102°. Spinal fluid was purulent and contained meningococci. During the first 6 days in the hospital she received 10 injections of antimeningococcal serum, mostly by the cisterna magna, because of early blockage of the spinal route. The cultures became negative on the fourth day after admission. The temperature remained between 102° and 104° for 2 days after the last injection, and gradually fell to normal on the twelfth day after admission. Two months after discharge from the hospital she was in perfect condition, and had gained 5 lb. in weight.

The next case appears to fit into the group of intracranial aneurysms, as described to us recently by Dr. Freeman. The child was 2 yr. old, and had been well until the morning of admission, when there was a sudden generalized convulsion. There had been no previous trauma.

Several convulsions followed, and she was admitted in a semi-conscious state with a fever of 102°. Lumbar puncture on 2 occasions, done without trauma, gave bloody spinal fluid under normal pressure. On admission, there were muscular twitchings of the right side of the face and a marked weakness of the right upper extrem-

ity. These had disappeared on the following day, and she was discharged apparently normal on the fourth day. Forbus has described the finding of miliary cerebral aneurysms in the brains of individuals examined routinely at necropsy. The rupture of some such aneurysm may explain this picture; may also account for the development of intracranial hemorrhage in many cases of easy spontaneous delivery in which one is surprised to find the presence of hemorrhage. However this is purely theoretic.

The final case brings up the possible relationship of vaccination to the occurrence of encephalitis, in a white boy of 6½ years. He had been vaccinated successfully 47 days before onset of the first symptom and there was still a scab present. Except for a rather poor appetite during the previous 2 weeks, he had been well until the onset of the present illness, 10 days before his death. The first symptom observed was a slight limp in the left leg. During the next 4 days there was increasing difficulty in walking and increasing drowsiness. He was put to bed, where he lay in coma for 5 days at home and 1 day in the hospital. There were trismus and inability to swallow; incontinence; no convulsions or vomiting; no history of exposure to tuberculosis; reflexes absent in the lower extremities which were flaccid, but present in the right upper extremity and exaggerated in the left upper, which was spastic. Babinski positive; neck not in the least rigid; pupils dilated and equal, regular, sluggishly reactive to light. Respirations regular and not very rapid. Spinal fluid clear, under increased pressure with 8 cells (lymphocytes). Leukocytes 14,000; 76% polymorphonuclear. Blood culture negative. Temperature rose from 101° to 108.8° before death. Final diagnosis: Epidemic encephalitis.

The chief reason for believing that the vaccination was not related to the subsequent encephalitis was the length of the latent period; i. e., 47 days. In the summary, by Flexner, of reported cases of postvaccinal encephalitis, the longest interval between the time of vaccination and the onset of nervous symptoms was 34 days; the average being quite regularly 11 to 12 days. This would seem to make the vaccination of incidental rather than of etiologic significance in this case. However, it serves to refresh the memory on a few of the high-lights of postvaccinal encephalitis. The condition was described first in 1924, by Lucksch in Prague, although undoubtedly it had passed unrecognized long before that. Holland and England have experienced the greatest number of cases, although a few have been reported from this country. It is a disease-complex of strikingly individual nature, in the sense that it presents a consistent pathologic picture, clearly separable from epidemic encephalitis. It runs a hyperacute course and has a mortality of from 35 to 50%. When recovery takes place after 1-2 weeks, it tends to be complete; in contrast to the distressing sequels of epidemic encephalitis. The spinal fluid is under increased pressure, but is otherwise usually normal. The cardinal symptoms are fever, vomiting and headache, or convulsions, plus any form of paralysis. Pathologically, it differs from epidemic encephalitis in the punctiform hemorrhages and areas of softening in the brain and spinal cord, and in the fact that it involves both the gray and the white matter of both the brain and the spinal cord. Infants up to the second year of life, rarely develop this complication; another argument for

early vaccination. The age of 3 to 6 years is the period of greatest susceptibility. The etiology is speculative and the incidence can be placed at about one in several thousand vaccinations.

BURLINGTON COUNTY

Roscius I. Downs, M.D., Reporter

The regular meeting of the Burlington County Medical Society was held at the Burlington County Hospital, Mount Holly, Wednesday, March 9, with President Curtis presiding and 17 members present.

A letter to the Secretary, from Mr. Ernest D. Easton, Executive Secretary of the New Jersey Tuberculosis League, regarding a course of post-graduate instruction in tuberculosis for physicians, sponsored by the League, was read and referred to Dr. Newcomb who is now holding a similar clinic once a month, for physicians, at the sanatorium.

The Chairman of the Committee on Post-Graduate Courses reported that 18 members had enrolled for the lectures on "Newer Drug Therapy" to be given by Drs. Gold and Goldring, and to start March 31.

Dr. Rogers reported that the Social Workers of Riverton believe that a convenient local "venereal clinic" is necessary, or desirable for the river-front towns, and a committee, composed of Drs. Rogers, Conroy and Rodman, was appointed to consider that subject.

Dr. Thomas J. Summey, Chairman of the Section on Surgery, announced the following program: "Empyema", by Dr. Henry P. Brown, Jr., of Philadelphia; and "Appendicitis", by Dr. Summey.

Dr. Brown said, as to etiology, that often the pleura becomes infected through the blood stream, following an acute exanthema, an acute pneumonia, or an abscess in neighboring structures. Infection secondary to a subphrenic abscess is due generally to aspiration of infective material. As to location of pus, it may be general, inter-labor, between pleura and mediastinum, or above the diaphragm.

In diagnosis, x-rays, the exploring needle, and the fluoroscope are important aids.

In treatment, the most important factor is the time to operate, but it is never an acute surgical emergency.

The position of the patient should be—prone on the well side, and location of the incision depends on the best site for drainage. In children, remember that the diaphragm is 1 rib space higher than in adults. The method of drainage is chosen as between the open type and the negative-pressure type; both methods serve well, but the open type is simpler and therefore seems more satisfactory. In the negative-pressure method, rubber dam seals the opening about the tube, and the tube passes into a bottle of water. With a localized collection, open wide and pack with gauze. In double chronic empyema, both sides of the chest can be opened at the same time. When resecting a rib, a right-angle incision of the periosteum, at the ends of the resection, prevents infection of the bone. A chronically contracted lung requires a wide exposure with stripping of the pleura, or criss-cross incisions of the pleura.

Dr. Summey desired to show the character of work done in the Surgical Department of the

Burlington County Hospital, by reporting the results in the appendicitis cases. He wished to show that the sooner the patient is received for treatment the better the prognosis. There were no deaths in acute cases requiring no drainage; 1 death, the patient having a chronic inflammation, was caused by infection of appendix stump, resulting in general peritonitis.

Two deaths were attributed to the fact that those patients, having acute suppurative appendicitis, were not sent to the hospital until more than 48 hours after onset of the affection, so that perforation and peritonitis were established be-

fore the operation. Two other patients returned fecal fistula; and 3 returned because of intestinal obstruction which required immediate operation.

Dr. Summey's chart of 604 appendectomies, 141 of which were incidental to other operations, in 3 years and 8 months, at the Burlington County Hospital, follows:

Summarized results below show types of appendicitis; number of cases of each type and number of deaths, with accompanying mortality percentage; average days spent in the hospital; average cost to the hospital per patient of each group.

Type of App.	No. of cases	Deaths	% Mortality	Average days in Hosp.	Average cost
Chronic	109	1	.9	13.56	\$67.12
Incidental	141	0	.....	.....	.....
Acute suppurative	265	2	.75	16.55	\$81.84
Acute gangrenous	59	3	.51	22.	\$108.90
Appendiceal abscess	16	0	.....	22.9	\$113.36
Spreading peritonitis appendix not removed	14	4	28.5	26.6	\$131.57
Totals.....	604	10	1.65	.....	.....

CAMDEN COUNTY

R. L. Sharp, M.D., Reporter

The regular meeting of the Camden County Medical Society was held on March 1, in the Camden City Dispensary Building, with Dr. E. G. Hummel, presiding, and 55 members present.

Dr. S. S. Lewandowski, 1450 Mt. Ephraim Avenue, Camden, was elected to active membership in the society.

Drs. Reik and Marvel, of Atlantic City, were introduced as Guests.

The Scientific Program was opened by Dr. A. L. Stone, with an excellent paper; "The Profession's Responsibility in Matters of Public Health". Discussion was given by Drs. Pratt and Goldstein.

The second paper of the evening was read by Dr. Arthur First, by invitation, on: "The Newer Concepts of the Biologic Tests for Pregnancy". The speaker very ably described, with the aid of lantern slides, the various recently accepted biologic tests, and discussion followed by Drs. A. B. Davis, G. F. West, T. B. Lee, and Hyman I. Goldstein.

A committee was appointed to arrange for appropriate celebration of the 85th Anniversary of the Founding of the Camden County Medical Society.

ESSEX COUNTY

St. Michael's Hospital Staff Meeting
John W. Gray, M.D., Reporter

The regular monthly clinical meeting of St. Michael's Hospital Staff was held February 11, with Dr. William Gauch, President of the Medical Board, presiding.

Dr. Joseph Fewsmith presented the first case report: The patient was a man, 36 years of age, a construction worker, whose history was negative except for the fact that he drank and smoked to excess and for the past 4 months had suffered from gastric pain a few hours after eating. He entered the hospital because of

severe hemorrhage; hemoglobin, 76%; erythrocytes 3,880,000. Hemorrhage continuing, he was transfused when the hemoglobin reached 50%, but vomiting of blood continued and he died 2 days later. Autopsy revealed a deep ulcer, low in the duodenum, which had burrowed into the head of the pancreas, and had eroded the pancreatic-duodenal artery.

Considerable discussion followed, regarding the indication for transfusion and surgery in such cases; and reference was made also to the treatment of hematemesis by retention catheters.

Dr. John F. Hagerty presented the next case: A boy 8½ years old, on whom a thyroidectomy had been done 4 months previously. Patient had been ill 2½ yr., had lost weight and strength, there was severe exophthalmos, and treatment of various kinds had failed. Since the operation, done under local anesthesia, he had gained 21 lb., pulse rate had become normal, exophthalmos was less marked, he attends school and takes part in boys' games. The special points of interest were the severe toxicity and exophthalmos in a young boy; the fact that local anesthesia proved satisfactory; and that recovery was so prompt.

Dr. Edward J. Ill gave an interesting talk on the Use and Abuse of Pessaries, of which the following is a brief résumé.

Pessaries have been used in one way or another since time immemorial. In early times they were made by twisting cord into the shape of rings, of various sizes, and these were dipped into molten wax or tar, making the prototype of the "ring pessary", which even today is occasionally used, though it is now always made of hard rubber and may be useful to inexperienced hands because it does little harm and can be easily removed and replaced by the patient. It is of use in slight degrees of prolapse, when there is still a fairly good perineum. It should never be too large and, as with all other forms of pessaries, should be removed from time to time and the vagina thoroughly irrigated. A soft rubber pessary should never be used.

The next pessary that appears in ancient literature consisted of a ball of wool dipped in molten wax or tar and called the "ball pessary". The

difficulty with this one was that a string must be attached to it, which always annoys the patient because it hangs from the body and is always wet. The ball pessary made of hard rubber can still be bought at some shops, and I have of late years made a pessary in the shape of a ball, fitted to a stem pessary and worn on 2 rubber tubes held up by an abdominal supporter. These pessaries have been used for hopeless cases where a complete prolapse of the vagina followed removal of the uterus, the object of which was to cure the prolapse. It serves its purpose well and patients are much relieved by its use. Intra-vaginal pessaries are of increased difficulty in their application when used for retrodisplacements and cystoceles, because certain cardinal rules must be followed. First the uterus must be freely movable and put in complete anteversion, when we use an Albert Smith pessary. Increased difficulty is encountered where there is a retroflexed organ. There must be no scars in the vagina to push the pessary laterally and the pessary must be of as small a size as is commensurate with keeping the uterus anteverted. As soon as an erosion of the vagina is produced, it is too large. If in spite of the pessary the uterus is again retroverted, when the patient is examined after a week or 10 days, another size should be used, and the uterus must again be put in anteversion. Proof that the pessary is doing its work properly is that the patient feels greatly relieved; the dragging and backache have ceased when the uterus is kept in place. If the backache continues, look for another cause. It is my custom to place the retroverted uterus in position and apply a pessary before I advise an operation. Where there is a fairly good pelvic floor this Albert Smith pessary is of great value. If there is a very redundant vagina that condition should be treated before a pessary is used.

The Hodge pessary acts very similarly to the Smith except that there is much pressure exerted on the neck of the bladder which often produces dysuria; however, it was the fore-runner of the Gehrung instrument which is by far the most valuable of such instruments in my hands. It is used for a cystocele of moderate degree, with or without retroversion, and is of immense value to the old and decrepit woman, and to all patients whose condition of Bright's disease or diabetes makes an operation hazardous. In the child-bearing woman, who for one reason or another does not wish to be sterilized, a desire which we must respect, this instrument is of great value. The condition essential to a satisfactory use is that there must be at least a semblance of a pelvic floor, that there are no prominent scars in the vagina, that she is taught to keep the instrument clean, and that it must be removed in 2 or 3 months for cleansing. Often enough, there will be a calcareous deposit on the instrument, which is easily removed by immersing in dilute hydrochloric acid and then brushing under flowing water.

That pessary is made by doubling over a Hodge pessary so as to form a double-horseshoe connected by a curve. One horseshoe is a little shorter than the other and it must be introduced by pushing one curve into the vagina, then rotating it until the cervix lies behind the smaller horseshoe and the bladder behind the larger. The instrument is one that has been almost forgotten, which I found only by accident, and which prompted me to write about it some 5 years ago.

Lastly, I wish to speak of the cup-and-stem pessary, which, when once properly fitted, the patient will remove at night, clean, hang it up to dry, and reintroduce in the morning. I use it for the timid woman or for those with whom the extensive plastic operation is hazardous. The length of the stem varies with the length of the vagina, and the stem is held up by rubber tubes fastened to an abdominal supporter.

To conclude, let me say that: (1) To understand a pessary one needs some knowledge of the anatomy of the pelvic contents. (2) The uterus must be freely movable. (3) There must be no exudate in the broad ligaments. (4) There must be no tumor in the uterus. (5) There must be no hard and unyielding scar in the roof of the vagina. (6) In retroversion, there must be perfect replacement before a pessary can be introduced and any results expected. (7) All pessaries must be removed from time to time, cleansed, the vagina examined for erosion, and the instrument replaced.

Dr. John Gray discussed the Serum Treatment of Pneumonia. He stated that conclusions regarding the efficacy of serum treatment could not be made from small groups of cases because of the fact that some abortive cases get well quickly without serum and many severe cases do not recover even if serum is used. He showed that in Bellevue Hospital a series of 239 cases of Type I pneumonia treated with Felton's serum showed a death rate of 20%, as compared with a mortality rate of 31% in a control series of 234 untreated cases. There was a further reduction in the death rate to 11.7% in cases treated within 72 hours after the onset.

Felton's serum is a concentrated, refined product, more than 10 times as potent as unconcentrated preparations; now furnished without charge by the Newark Board of Health. It is being used in the City Hospital service, for all patients with diagnosis of lobar pneumonia; being given immediately up to 20,000 units, and if typing proves to be I or II it is continued until there is improvement in symptoms, or until about 100,000 units are given.

Advantages of the Felton serum over the original serum and Hinton's antibody solution, are that it is more potent and reactions are less frequent. However, it is always essential to do the conjunctival test before administering the serum; 1 drop of horse serum is placed in the conjunctival sac and if no congestion occurs within 15 minutes the serum may be injected. The first injection should be given very slowly and always with a hypodermic syringe of adrenalin solution at hand in case of an allergic reaction. If no reaction occurs, larger subsequent doses may be given.

For typing, a specimen of sputum is obtained as quickly as possible. If this is not possible, a growth of pneumococcus sufficient for mouse injection can usually be obtained from throat swabs. The type can usually be ascertained, through capillary aspiration from the peritoneal fluid of the mouse 3-4 hr. after the injection. The type may also be made from blood cultures. It is also advisable to take blood cultures from the standpoint of prognosis, because in the Bellevue Hospital series the death rate was almost 8 times as high in patients with septicemia as in those whose blood remained sterile. Precipitation tests on the urine are seldom positive except in severe cases. Recently, 32 types have been identified in group IV and serum has been devel-

oped for the treatment of some of those types.

Administration of oxygen is the rational method of treating cyanosis. It has been shown that the inhalation of 40-60% oxygen raises the arterial saturation to near the normal level. Oxygen may be given in an oxygen chamber, by the Roth-Barach tent, by the motorless type of tent devised by Cecil, or through the nasal catheter in conjunction with high pressure oxygen and a calibrated reducing oxygen valve. The old fashioned funnel method of giving oxygen is practically useless.

Pneumonia of the severe type is spread largely through the medium of carriers. Stillman has shown that the specific disease-producing type of pneumococcus may be present in the mouth of patients as late as 90 days after recovery. It is important that doctors and nurses realize that *pneumonia is an infectious and transmissible disease*.

Regarding prophylaxis, Cecil and Austin vaccinated 12,519 soldiers at Camp Upton against 3 types of pneumococcus, and brought about a marked reduction in the incidence of pneumococcus pneumonia among vaccinated troops. The immunity conferred by pneumococcus vaccine is of comparatively short duration, probably less than 1 year. It is particularly indicated for individuals who are subject to recurring attacks of pneumonia.

Academy of Medicine of Northern New Jersey

On March 17, the Academy of Medicine of Northern New Jersey celebrated its Twenty-first Anniversary. The guests of the evening were the Honorable A. Harry Moore, Governor of our state, and Charles Gordon Heyd, President-Elect of the Medical Society of the state of New York. The interesting paper delivered by Dr. Heyd was immensely enjoyed by the guests of the Academy. His title was "The Responsibility of the Community to Its Physicians".

The Nominating Committee, consisting of Drs. Epstein, Haussling and Dieffenbach, brought in the nomination of the incumbents whose terms expire next month.

Prior to the stated meeting, the Council held a dinner meeting at which the Presidents of Essex and Union County Medical Societies, along with Drs. Kelly and Quinby, were the guests of Dr. Eagleton.

Dr. E. D. Newman, Secretary Emeritus of the Academy, celebrated 45 years of married life during the past week.

Academy of Medicine of Northern New Jersey Eye, Ear, Nose and Throat Section

A. Russell Sherman, M.D., Secretary

The regular monthly meeting of the Eye, Ear, Nose and Throat Section of the Academy of Medicine of Northern New Jersey was held March 14, with Chairman Buvinger presiding, and 25 members and guests present.

The Nominating Committee, appointed at the previous meeting, made the following recommendations for officers for the ensuing year: Chairman, Elbert A. Curtis; Vice-Chairman, John L. Courrier; Secretary, A. Russell Sherman.

Dr. William H. Hahn presented a case of "Unilateral Buphthalmos", and Dr. Norman Bur-

ritt, a "bilateral" case. They were discussed by Drs. Pendexter, Rados, E. S. Sherman, Pennell and Samuel T. Hubbard.

Dr. Burritt described a facial weakness coming on 8 days after an operation for acute mastoiditis, which cleared up in a few days without further operative intervention. Dr. Henry Barkhorn, discussing Dr. Burritt's case, stated that such recoveries are not uncommon and that an immediate secondary operation is often ill-advised.

Dr. Hurff described "Four Cases of Glioma of the Retina Occurring in a Single Family" under his care, and referred to the recent classification of gliomas by Bailey and Cushing. Discussed by Dr. O'Connor. Dr. Burritt called attention to the possibility of invoking the Child Welfare Act, if necessary, in order that the parents may be compelled to allow periodic examinations of such children at suitable intervals.

Dr. A. Russell Sherman described "Three Cases of Intra-ocular Metallic Foreign Bodies not Discovered by X-ray Examinations", in 2 of which the eye was lost; probably as the result of late diagnosis and lack of prompt treatment.

Dr. Joseph Miller described a case of "Cavernous Sinus Thrombosis Resulting from Frontal and Ethmoid Disease". The cavernous sinus was drained through the orbit after evisceration of the orbital contents, and the patient died after 6 days. Autopsy showed multiple metastatic abscesses. Dr. Barkhorn, in discussion, called attention to the lack of any local extension, in the form of meningitis, in spite of the extensive involvement of distant organs by way of the blood stream.

Dr. E. S. Sherman read some extracts from a proposed amendment to the Optometry Act and pointed out several features which were objectionable from a public health standpoint. He stated that it would be imperative for every ophthalmologist in the state to protest to his assemblyman if the bill should come up in the Assembly.

Dr. Hurff offered a resolution to the Section condemning the objectionable feature of this proposed amendment, and it was unanimously adopted.

Academy of Medicine, Northern New Jersey Surgical Section

Edward M. Finesilver, M.D., Secretary

Under auspices of the Section on Surgery, Academy of Medicine of Northern New Jersey, a Urologic Symposium was held at the Newark City Hospital on February 23, and the chairman of the Section, Dr. Clymont MacArthur, turned the meeting over to Dr. Clarence R. O'Crowley, Chief of the hospital's Urologic Service. Program of the Section's most interesting meeting held this year, follows:

(1) Dr. B. Rothhouse, Consideration of Urethral Strictures. (2) Dr. Milton Friedman, New Therapy in Gonorrheal Arthritis. (3) Dr. Edwin Seidman, Consideration of Vesical Calculi. (4) Dr. H. H. Goldstein, Consideration of the Hypertrophied Prostate. (5) Dr. C. R. O'Crowley, Consideration of Bladder Neoplasms and Prostatic Carcinoma. (6) Dr. Paul Menk, Consideration of the Surgical Ureter. (7) Dr. S.

Rothenberg, Value of Intravenous Pyelography. (8) Dr. Kenneth Wheeler, Other Kidney Diagnostic Methods. (9) Dr. George Leckie, Bacteriophage in Urology. (10) Dr. Sidney Keller, Consideration of the Surgical Kidney.

A very interesting discussion of these papers was carried on by Drs. Haussling and O'Crowley, who also demonstrated the new McCarthy Surgical Diathermy Unit, with the Visual Prostatic Electrotome. On Dr. O'Crowley's service, the use of radium and deep x-ray therapy in bladder neoplasms, has gradually fallen into disuse. These lesions are now treated by direct fulguration, either at open operation or through the cystoscope.

As Assistant Professor of Urology at the University of Pennsylvania Medical School, Dr. O'Crowley gives a course of lectures to the students of the Graduate School, and each year 1 of the class spends the second of his 2 year's course, as Resident Urologist to the Newark City Hospital. The present incumbent is Dr. George Leckie, of Detroit, who will receive the degree of Master of Science in Urology, from the University of Pennsylvania, on completion of his thesis—Bacteriophage in Urology—and his residency under Dr. O'Crowley.

Associated Physicians of Montclair and Vicinity

Cyril S. Kirkby, M.D., Secretary

The first part of the meeting, on February 26, was devoted to a tribute to our colleague, the late Dr. David Clark Thompson, of Bloomfield.

Dr. Howard Clute, of the Lahey Clinic, of Boston, read a most interesting and instructive paper on "Recent Advances in the Treatment of Obstructive Jaundice". He stressed the importance of determining early whether or not the obstruction was one that would require operation, so that the necessary procedures could be done before the patient's condition became too grave. The 3 things to combat in the treatment of obstructive jaundice are: liver failure; kidney failure; and the tendency to bleed.

The treatment for all of these is fluids and glucose; 2500 c.c. of saline and glucose daily by clyses, plus fluids and sugar by mouth. The fluid relieves the kidneys by diluting the irritating bile salts, and increases the amount of bile eliminated. The glucose helps to restore the glycogen reserve of the liver. Transfusion is used, if necessary, especially for bleeding, though elimination of bile salts via the kidney reduces tendency to bleed. He does not use calcium to prevent bleeding, as he has found it useless.

He has found that a patient showing a rapid 30 minute sedimentation of red cells, is more liable to bleed than one with a normal sedimentation time. The bleeding and clotting time, he has found, are unreliable indications of a tendency to bleed. The daily test for urobilin is a good check on patient's condition. Absence of urobilin means complete obstruction; normal amount no obstruction; and, excess means liver damage.

The rest of the talk was devoted to the various locations and types of obstruction, and the methods of correcting or alleviating such conditions surgically.

Dr. Frank Matthews, of the College of Physicians and Surgeons, of New York, opened the discussion.

Homeopathic Hospital Staff Meeting

Drs. Edward H. Willan and Ferdinand C. Dinger, Reporters

The regular monthly clinical staff meeting of the Homeopathic Hospital was held at the Baker House, Thursday evening, February 25., with Dr. Willan presiding, and 28 members present.

Dr. E. H. Willan opened the meeting with an explanation of the 4 main types of "Toxemias in Late Pregnancy". (1) True hepatic toxemia, where certain circulating poison damages the liver primarily, and the kidney suffers secondarily. (2) Acute nephritic toxemia, where the kidney suffers primarily with an acute poisoning caused either by infection in its pelvis, from some other focal infection, or from some toxin generated by the fetus. (3) Chronic nephritic toxemia, where the patient enters upon her period of pregnancy with damaged kidneys, which may be the result of previous nephritis, or possibly of a stone in the kidney, and there is enough kidney function remaining to carry the individual under normal circumstances, but, with the additional burden of pregnancy toxins, the kidney begins to show signs of failure. (4) Malignant hypertension, where belong the group of individuals who had high blood pressure before pregnancy occurred, then suffer an increase, and finally, perhaps from edema of the brain, develop convulsions at the end of the period of pregnancy. The term eclampsia means convulsions. In other words, it is not a disease but a symptom, and any 1 of the above 4 classes of disease may terminate in convulsions and thus cause eclampsia.

Dr. E. L. Campbell was then introduced to present the first case of preëclampsic toxemia. He prefaced his presentation with a simplified classification of these toxemias, dividing the cases into 2 main types for general consideration, granting there may be various degrees of difference in pathologic involvement underlying in these groups. The first, the preëclampsic type, is caused by a toxemia of unknown etiology which affects the liver and kidneys primarily. This is associated with a sodium chloride and fluid retention which results in edema of the tissues, albuminuria, various gradations of hypertension, and all the common symptoms that go with the preëclampsic stage. The symptoms appear later, usually during second half of pregnancy. The second group, the nephritic type, is associated with a retention of the nitrogenous material within the body. This type appears in individuals who approach their pregnancy with some degree of damaged kidneys with or without associated cardiovascular involvement. As previously stated, while the preëclampsic symptoms very rarely appear before the second half of pregnancy, in nephritic toxemia, the patient's attention may be drawn to her condition by the appearance of edema as early as the third month, without any associated rise in blood pressure. In those cases, failure of the kidneys to put out the great amount of nitrogenous waste products in the form of urea, is the predominating factor. In some cases, the kidneys show a progressive deterioration even after the pregnancy has concluded, and the patient may ultimately die in uremia at a considerable interval after delivery. It is the possibility of this progressive lesion, and the probability that permanent damage will in any case result, that makes the diagnosis of this type of toxemia of such importance.

In view of the fact that from a purely clinical standpoint the 2 types may resemble each other in so many respects that diagnosis is made difficult, Dr. Campbell offered the following points of difference between those types from laboratory work-up and physical signs.

Dr. Campbell then presented the first case. A woman, aged 31, was first seen in the seventh month of pregnancy. History of having been refused life insurance, because of high blood pressure, before her marriage. On her first visit at 6½ months, urinalysis showed albumin 3+ with granular and hyaline casts, pus, and occasional blood. B.P. 155. Put to bed, on a low protein and salt-free diet, and given magnesium sulphate and diuretin. At the end of a period of 2 weeks, blood pressure was down to 147, urinary albumin, 2+. In spite of the fact that the patient was being kept very quiet at home, she started to labor at the end of the seventh month and was delivered of a premature infant

anxiety concerning welfare of the child because over a 10-day period no fetal heart beat could be heard. Urinary albumin was constant and blood pressure continued high. At the end of this period, patient was taken to the operating room and a Barnes' bag was installed. On the fourth day, after insertion of bag, there was a chill, with sharp rise of temperature and labor began. A normal child was delivered, there being nothing unusual about the delivery except the application of low forceps. Three days post-partum, the mother showed some evidence of mental depression and was talking irrationally; which may have been due to toxemia or, possibly, to small doses of sodium amylal used to quiet the patient at night. The follow-up examination on this mother shows that her blood pressure still remains at a rather high level of 160 and she still shows albumin 2+, in her urine.

Dr. Campbell, in discussion, placed this case in the true nephritic type where there was evi-

Preëclamptic Toxemia

URINE: Amount tends to be small

Protein, usually in large quantity, usually clears up after delivery.

Diastatic index, high (30 plus, with 12 to 25 normal).

BLOOD CHEMISTRY UREA:

May be below 30 mgm. per 100 c.c.

UREA CONCENTRATION TEST:

Occasionally above 3%, rarely below 2%.

BLOOD PRESSURE:

Above 140 and falls after delivery.

CARDIOVASCULAR CHANGES:

Absent.

EYES:

Edema and various degrees of hemorrhage may be present. Frequently no retinal changes.

PROGNOSIS:

Immediate outcome doubtful; when immediate danger passed, ultimately good.

weighing approximately 3 lb. Subsequent to delivery, the albuminuria entirely disappeared, blood pressure dropped to normal, and she is now without any signs of renal damage or hypertension. This, Dr. Campbell thought, made his case fit into the preëclamptic type. As to prognosis, after a year or more of rest and care, the patient might undergo another pregnancy without any such difficulty. The baby was placed in the incubator, fed artificially, and at the present date weighs 7 lb.

Dr. Arthur F. Thompson presented the next case, a woman, aged 31, who showed edema of the face and extremities, in the ninth month of pregnancy; urinalysis showed albumin 3+, hyaline and granular casts, with pus and blood cells, and blood pressure from 168 to 198. Patient was sent to the hospital, and treatment instituted; stressing rest, sedative medication, and elimination by bowels and kidneys. There was some

Nephritic Toxemia

Amount may be normal.

Variable, may show a slower gradual increase in amount. Persists after delivery.

Usually low, 5% or less.

Urea content usually about 40 mgm. or higher.

Very frequently below 2%.

May be normal throughout; if raised, persists even after delivery.

May be present.

In some cases, albuminuric retinitis.

Ultimate frequently bad.

dence of renal damage both before and after pregnancy. In a subsequent pregnancy, one might expect more renal damage and serious consequences for the patient; so in this type of toxemia, attempt should be made to prevent another conception.

The hospital statistics on the Obstetric Service for the years 1929-31 showed: A maternal mortality rate 0.5%; infant mortality rate 2.6%; cesareans in 5% of the cases; maternal mortality rate in cesareans done before the onset of labor was 2%; cesareans done after onset of labor, maternal mortality was 17%. It was further shown that forceps applications were made in 13% of the cases, with no maternal mortality, but an infant mortality of 3%; number of versions in 1606 cases, was 18, with no maternal or infant deaths among the versions.

Because of the high death rate of cesareans secondary to labor, it was determined by the

Executive Committee of the hospital to discuss at the clinical staff meetings, all cesareans performed, and so the following cases were presented.

Dr. P. B. Davenport. An apparently strong woman, aged 29, was sent in after approximately 10 hours of early labor. She was a primipara at full term. With the onset of labor there had been a moderate show which lasted through the evening. Two or 3 hours after entrance to the hospital her pain was not very severe. Pantopon gr. 1/3 was administered, to give the patient some rest. During the night, pains were of minor character. She was continuously in labor during all of the next day and night, and the following day until 3 p. m., a total labor of 54 hours. At that time she showed considerable exhaustion and apparently the head was unengaged. A roentgenogram showed that the head was directed in the posterior position on the right side. The fetus was large and ossification of skull bones was well advanced. Dr. Marquis, of the x-ray department expressed the opinion that difficulty would not be encountered because of any disproportion between the head and the bony pelvis but, that very little molding could be expected. In face of the patient's exhaustion, 54 hour labor, and the general position of the child, it was determined that a cesarean should be done. The abdominal section was performed under gas-oxygen-ether anesthesia; vertical incision in the uterus after dissecting the bladder away from the lower segment; considerable bleeding encountered because the placenta was in the line of incision. Pituitrin was used, and baby was delivered in good condition. The mother showed marked shock and collapse following closure of wound and hyperdermoclysis was instituted. At the end of 1 hour, her pulse was still rapid and rather weak, but her general condition seemed improved. Before another hour passed, however, the patient went into sharp collapse; intravenous injection was attempted, but the patient expired before that could be accomplished. Permission for an autopsy could not be obtained. Death was ascribed to postoperative shock and exhaustion, or possibly pulmonary embolism.

Dr. A. H. Horland presented the next case. A woman, aged 30, who had a history of 2 previous spontaneous abortions, 1 at 3 and 1 at 4 months. Examination of her blood and spinal fluid showed negative Wassermann and Kahn reactions. This patient had a marked systolic, aortic murmur. She was seen for the first time in about the sixth month of pregnancy. The time was rather uncertain because of the woman's menstrual history, which had been extremely irregular. The patient was impressed with the necessity for extreme quiet and rest during the period of her pregnancy. At about the seventh month, she appeared at her doctor's office for routine antipartum examination, and while waiting for her turn was suddenly seized with dyspnea, collapsing symptoms, cyanosis and pain in her epigastrium. Atropine and morphine were administered and an ambulance called. On arrival at the hospital she was extremely cyanotic and dyspneic. The heart tones were of fair quality, and there was a double murmur—apparently the aortic plus a new mitral murmur. There were moist râles in the chest on both sides. Patient was immediately placed in an oxygen tent and various stimulants,

such as adrenalin, atropine and digitalis, were administered. The oxygen tent seemed to improve the color for a time, but restlessness continued and required large quantities of morphine to effect control. At the end of 22 hours it was apparent that the patient was expiring. A phlebotomy was done and possibly 600 c.c. of blood removed. When it became apparent to the husband that his wife could not survive, he asked for cesarean section in an effort to gain a living child. This was done without anesthesia, in the moribund mother, and a child was delivered, but proved to be cyanotic, premature and breathed only 2 or 3 times.

This case was turned over to the coroner who, without a postmortem, ascribed the death to a ute cardiac failure complicating pregnancy.

Dr. G. W. Vannatta. This patient had a contracted pelvis, anterior spines measured 21 cm.; crest 22 cm.; and her external conjugate 19 cm. She had been delivered previously, by cesarean, of a normal child and an elective cesarean was proposed for this delivery for the same reason. Dr. Vannatta was unable to be present, so this case was not presented in detail. The cesarean was done immediately upon the onset of labor and mother and child came safely through without unusual event.

Staff Meeting of Newark Beth Israel Hospital

Max Horn, M.D., Secretary

The regular monthly meeting was held on March 2, and the following papers were read and discussed.

Dr. Arthur Heyman spoke of "Recent Advances in the Treatment of Asphyxia Neonatorum". The high death rate in the first ¼ hr. after birth continues; due mostly to asphyxia. Older methods of resuscitation were unscientific, injurious and usually unsuccessful. Two of the recently suggested treatments for asphyxia neonatorum offer much hope; the Drinker infant respirator and the carbon-dioxide-oxygen inhalator. Proper use of these methods, singly or in combination, give promise of reducing this chief cause for early neonatal deaths.

Dr. Leopold Szerlip presented a paper dealing with "the results of the routine examination of all new-born ward babies" during the year 1931; the first year that such examinations were properly conducted and recorded. He reported that of 511 babies examined, there were congenital deformities in 36 (7%); and the deformities found were as follows: Calcaneovalgus, 15; hammer toes, 10; equinovarus, 7; web toes, 1; contracted finger, 1; Erb's palsy, 1; supernumerary digits, 1.

These examinations are not only important from the standpoint of the patient, but are now made necessary because by the new state law which requires that all visible, congenital deformities must be reported on the birth certificate.

Dr. Bernard H. Greenfield presented a report on a "Series of 10 Cases of Acute Gastric and Duodenal Perforated Ulcers". In all but 1 case, there was a history of long-standing gastric symptoms. Most authors quote the age of susceptibility of the patient as between 20 and 40 years. In our series, the average age was 42; the youngest was 21 and the oldest 57. Nine were male patients, and 1 was a female.

In 4 cases we cauterized the margin of the ulcer, and employed 3 rows of purse-string sutures of linen to close the opening. In 4 others,

no cauterization was done, and only purse-string sutures were used. In 1 case, after suturing, a posterior gastro-enterostomy was performed. In all cases we used cigaret drains: 1 in the original incision, and the other through a stab wound in the right lower quadrant.

One patient sent to our service after an illness of 5 days, due to an error in diagnosis, had suppurative peritonitis, and jejunostomy was performed. Uneventful recoveries were made by 9 patients and they were discharged from the hospital within a period of 15-17 days. One patient died 48 hr. after the operation.

The average time of operation after the onset was 8 hr., except in the fatal case.

If the correct diagnosis is made promptly, and an operation is performed within a few hours after the rupture, the prognosis is, as a rule, very favorable.

The site of the ulcer is usually on the anterior surface of the stomach, pylorus, or duodenum; and it rarely perforates posteriorly on account of protection afforded by the pancreas.

Correct early diagnosis is very essential; delay jeopardizes patient's life. The history of prolonged gastric symptoms; acute and sudden onset of severe pain; rigidity in the upper part of the abdomen; absence of dulness over the liver; and shock; should make one think of perforated ulcer.

Dr. Sidney Keller gave an instructive lecture on "Ureter Pathology", designed to aid the general practitioner with some of his problems of differential diagnosis.

New Jersey Orthopedic Hospital and Dispensary

Harold W. Smith, M.D., Reporter

During the month of January, there were given in the Dispensary 2684 treatments to 1130 patients; 346 patients were treated in the gymnasium; 1208 in the department of massage; and 158 were referred to the x-ray department, to become subjects of 324 roentgenograms taken.

There were 31 orthopedic operations performed, and 68 casts applied—35 upon hospital patients and 33 upon patients from the Dispensary.

On January 1, there were 31 patients in the hospital; 26 on January 31; the daily average census being 29.83 patients. During this period of time, 21 patients were admitted and 27 discharged; 7 out of this number being transferred to Westfield; 167 examinations were made in the laboratory and 5 new braces were ordered for Dispensary patients.

There were 44 patients in Westfield on January 1; and 46 on January 31. During this period, 9 were admitted and 7 discharged; 4 of this number being transferred to the Orthopedic Hospital for operations.

February Meeting

During the month of February there were given in the Dispensary, 2404 treatments to 986 patients, of which number 164 were new patients; 342 were treated in the gymnasium; 1063 in the department of massage; and 117 patients were referred to the x-ray department, for them 237 roentgenograms taken; 221 laboratory tests were made; 34 orthopedic operations performed; 4 tonsillectomies by Dr. Emerson; and 64 casts applied—41 upon hospital patients and 23 upon patients from the Dispensary.

On February 1, there were 26 patients in the

hospital, and 27 on February 29. During this period of time 20 patients were admitted and 19 discharged; 8 of this number being transferred to the Children's Country Home, in Westfield.

There were 46 patients in Westfield on February 1, and 48 on February 29; during which time 10 patients were admitted and 8 discharged.

The Doctor's Club of Newark

Charles Frederick Baker, M.D., Secretary

The regular monthly meeting was held March 21, at the residence of Dr. R. J. Brown, South Orange; with 14 members present.

Dr. F. Pinneo reported a case of pneumonia, type iv, in a child, complicated by empyema, and recovery after 3 transfusions.

Dr. C. Zehnder reported a case of foreign body in the orbit; 2 cases of brain tumor in young children, with marked papilledema.

Dr. J. I. Fort reported 4 cases of Paget's disease.

Dr. R. Schaaf reported a case of pneumonia, with osteomyelitis of the lower jaw, loss of deciduous and permanent incisors, and hemolytic streptococcus septicemia.

GLOUCESTER COUNTY

Henry B. Diverty, M.D., Reporter

The Gloucester County Medical Society met March 17 at the Oakwood Country Club for its regular meeting. The following members were present: Drs. E. E. Downs, Richard Moore, Fuller Sherman, Duncan Campbell, H. B. Diverty, Harry Nelson, W. Crain, J. Harris Underwood and Paul Pegau, Woodbury; Ralph K. Hollinshed and E. R. Ristine, Westville; B. A. Livengood, Swedesboro; H. L. Sinxon, Paulsboro; F. G. Wandall, Clayton; H. W. Stout and Don Weems, Wenonah; and W. J. Burkett, Pitman.

Dr. Thomas L. Sooy, of Pitman, was elected a member of the Gloucester County Medical Society. Dr. Miller and son, delegates from the Cumberland County Medical Society, were present; Dr. Gardiner, of Gibbstown, was a guest.

A very interesting case report was given by Dr. F. G. Wandall, of Clayton. Following this a most interesting address was made by Dr. Louis Herman, of Philadelphia, on "Hematuria". Discussions on the subject followed by Drs. B. A. Livengood, C. I. Ulmer and Green, of Philadelphia.

A luncheon was served to the members, joined by the Auxiliary, which met at the same time and place as our county society.

HUDSON COUNTY

Harry Perlberg, M.D., Secretary

The regular meeting of the Hudson County Medical Society was held at the Carteret Club, Jersey City, on Tuesday, March 1, with Dr. William W. Brooke, the President, presiding.

The following report of the Executive Committee was presented: Relative to medical care of the unemployed, it was decided that this should be through the family physician, who stands ready at all times to give treatment to his patients in accordance with their financial condition. Those who have never had the services of a family physician are requested to report or apply to the Overseer of the Poor, who will refer them, in his discretion, to the County Medical

Society, which will in turn assign a physician in the patient's immediate neighborhood.

In the matter of diphtheria immunization in the schools, Dr. Louis A. Pyle moved that: (1) "The Hudson County Medical Society goes on record again as emphasizing the efficacy of toxin-antitoxin, and the absolute necessity for having all school children treated with toxin-antitoxin, and commends, and endorses the plan of Dr. Louis A. Pyle and the Jersey City Board of Education—to circularize parents of the school children in an effort to find out who have and who have not yet received toxin-antitoxin, and who among those still untreated are willing to receive such immunization. (2) The Hudson County Medical Society takes a firm stand against using school clinics for immunizing those who cannot afford to pay for such protection; and suggests, instead, that those children be directed to the various hospital clinics, organized in the hospitals nearest the child's school; and, the Society adds that it stands ready to coöperate, to help organize, and if necessary, to supply doctors to help run such clinics.

It was the consensus of opinion that the schools should not be converted into agencies for the practice of medicine; and that the medical activities of the Public School System should be confined to the medical inspection of children, as heretofore. Dr. Pyle's motion was passed with but 1 dissenting vote.

The matter of financial relief to members of the Medical Society was discussed; only 1 request having been received, for financial aid. It was unanimously voted that the Secretary and Treasurer should constitute a Relief Committee, and that they should have the power to advance any sum of money up to \$100 to such members requesting aid, after proper investigation, and that such matters be held in strict confidence by the designated committee.

The Report of the Executive Committee was unanimously adopted by the Society.

The first paper of the evening was read by Dr. Philip J. Lipsett, on "Some Acute Intraabdominal Surgical Diseases and Their Treatment". Every acute abdominal lesion is accompanied by pain, which may vary in character, and in location, but is usually localized in the region of the lesion. Vomiting and fever are also important signs, and there are many medical conditions—notably pneumonia, typhoid, and cardiac lesions—which simulate surgical conditions and which must be differentiated therefrom. Prognosis depends generally upon the time interval between diagnosis and treatment; and time interval usually parallels the death rate, while early recognition and treatment lead toward a low mortality rate. Dr. Lipsett mentioned various diagnostic methods, including leukocyte count, with Arneth's cell classification and the Schilling index; also, inflation of the bowel and diagnostic puncture of the abdominal wall.

Then followed a discourse on acute appendicitis ruptured ulcer. In the latter condition, history of sudden onset, desire to remain immobile, appearance of a very sick but not shocked patient and the absence of a rise of temperature or pulse early in the condition, lead to the diagnosis; and in this condition, the death rate rises steadily with the passage of time. The operation is simple closure of the ulcer, preferably without drainage, if very early, but otherwise with suprapubic drainage. The mortality causes in order of frequency

are peritonitis, atelectasis and pneumonia, subphrenic and lung abscess.

In ruptured ectopic pregnancy the initial upset may be slight or sudden; the most dramatic cases being those in which there are cornual "blow-outs" or perforation of some large vessel.

In acute intestinal obstruction there is the typical symptomatology of—pain, vomiting, obstipation and constipation—and the most frequent causes are strangulated hernia, adhesions from previous operations, abdominal or pelvic inflammations, congenital bands and adhesions, intussusception, volvulus, gall-stones, tuberculosis, and strictures of the bowel. When fecal vomiting appears, the diagnosis has been made too late.

Drs. Miner, Bortone, Klaus, Halligan and Dodson took part in discussion of this paper, which was received with considerable interest.

Dr. W. G. Doran presented a paper on "Early Symptoms of Congenital Dislocation of the Hip". The early diagnosis of this condition is of the utmost importance since, according to a recent report, cures of only 10% to 50% are reported. Dr. Doran gave first an historic review of this condition from Hippocrates to the present time, though its most valuable study has been within the last 50 years, aided by radiography. (The paper is promised for later publication, in full, in the Journal.)

Bayonne Hospital Clinical Conference

Maurice Shapiro, M.D., Reporter

The regular meeting of the Bayonne Hospital Conference was held Monday evening, March 7, at 9 p. m., at the Bayonne Hospital; Dr. Donohoe, Chairman; and Dr. Shapiro, Secretary.

The deaths of the month were reported and discussed.

Dr. Scarsmith reported for the Surgical Service:

Case 1. W. B., aged 24, white male, entered with a history of very irregular and indefinite dyspepsia, in the form of mild abdominal discomfort and distress, fulness, belching, pressure and other untoward sensations, of several years' duration. About 6 months ago he was aware of a dull, boring pain in the epigastrium, radiating to the back and shoulders; pain relieved immediately after meals, but recurred in 1-2 hours, only to feel comfortable again before the next meal.

On the morning before admission he developed a pain in the epigastrium, sudden in onset, and excruciating in character; localized at first, it soon spread over the whole abdomen, and was associated with persistent vomiting.

His pulse was rapid and small; temperature subnormal; skin warm and moist; the mouth dry and parched, and patient extremely thirsty. These were the signs and symptoms of shock. Abdomen was scaphoid and rigid; tenderness most marked over the epigastric region. The blood showed 40,000 leukocytes, 96% polynuclear neutrophils. At operation that evening, an aperture 0.5 cm. in diameter was discovered leading from the stomach, close to the pyloric end, and on the lesser curvature anteriorly, through which gas and chyme were seen escaping. There was evidence of a localized peritonitis, with chronic inflammatory reaction involving an area about the size of a half-dollar around the aperture, indurated and fibrotic; induration which offered difficulty in closing the perforation. Patient is making a successful recovery, from

what was diagnosed as an "Acute Perforated Gastric Ulcer".

Case 2. Z. P., aged 62, white male, entered because of a sudden attack of pain over the right side of abdomen. Members of the family gave a history of vague gastro-intestinal symptoms, which they had attributed to chronic alcoholism of several years' duration. The ignorance of the patient and his poor family connections made an intelligible history impossible. The best information that could be obtained was to the effect that the patient had been ailing for a number of years and complained increasingly during the past few weeks. To them, he always felt feverish; complained of recurring mild attacks of pain and tenderness; first in the epigastric region and then over the entire right side of the abdomen.

He was anemic and gave evidence of loss in weight and strength. Tenderness was generalized over the right abdomen although there was no rigidity; in fact, the abdomen was soft and admitted palpation easily. Blood showed 6000 leukocytes with 75% polynuclear neutrophiles; 53% of which were early or rather immature cells, indicative of a chronic and long-standing infection. At operation, a diffuse peritonitis was discovered, with a large quantity of free, greenish fluid, not unlike bile, which seemed to come from the right upper quadrant. A thick, tenacious, gelatinous pus was found in the right side of abdomen, particularly in the pelvis between the sigmoid and ileal coils and at the hepatic flexure. Adhesions were of an extensive nature, and present between adjacent coils of intestinal loops; on the under-surface of the liver and hepatic flexure, between the gall-bladder and mesocolon, appendix, cecum, and pelvic organs. It was difficult to examine the stomach for any perforation. Two drains were inserted; 1 directed toward the gall-bladder and hepatic flexure, the other toward the right pelvic region. Postoperative condition was poor, temperature, pulse, and respiration went up rapidly, and death came quickly. The diagnosis was "chronic perforated gastric ulcer".

Dr. Ferenczi reported for the Medical Service the following cases:

Case 1. A. S., aged 62, white female, entered the hospital Nov. 10, 1931. Patient could not speak a word of English, and it was difficult to obtain any history from her. However, from her husband, information was obtained that she was told a number of years ago that she was a diabetic, but was never forced to adhere to any strict dietary. A few weeks before admission, she complained of severe pains in the toes of her left foot. Pains became persistent and patient sought medical advice; seeing a number of local and out-of-town physicians who prescribed for her, but the pain persisted and increased in severity. Gradually, she noticed the toes were becoming swollen and reddish in color, and to feel dead; and, coincidentally, the pain began to ease. In a short while, the reddish color changed to black and 1 toe painlessly fell off. During the latter stage of her illness she saw another physician who said the condition was due to diabetes and advised her to enter the hospital.

On admission, urine showed albumin, 3+; acetone 1+; sugar, 0.6%; occasional, finely granular cast. Blood chemistry: Urea nitrogen, 24; glucose, 348; blood picture—75 hemoglobin, 75%; R.B.C., 4,000,000; W.B.C., 12,320; polys., 77; lymphs, 20; monocytes, 3. Diabetes mellitus; dia-

betic gangrene; chronic myocarditis; was the diagnosis.

She was put on a maintenance diet of 1240 calories; 50 protein, 80 fat, and 80 carbohydrates. On this diet, the urinary sugar and acetone completely disappeared, without insulin, and never reappeared during the patient's course in the hospital. The blood sugar, on entrance 348, went down to 148, and 1 week before her death rose to 236 because the patient was put on a soft diet after she refused to eat the prescribed diet.

The surgeons refused to consider an amputation because of her poor condition, so the patient was referred to the dermatologist, who recommended diathermy and ultra-violet rays every morning. For 12 days the patient received this treatment with no apparent improvement; gangrene was spreading to neighboring parts and the patient complained of recurring pain. December 14, Dr. Samuels, of Mt. Sinai Hospital, an authority on circulatory disturbances, was invited to see her and a number of other patients. He took oscillometric readings of the arterial supply to the foot, and showed that there was practically none, as compared to the sound foot, and expressed his opinion as to the treatment of such cases, which is summarized as follows:

(1) If the lower extremity needs amputation below the knee, never resort to surgery; nature does the work better.

(2) Gangrenous infection should be bathed in antiseptic solutions; he preferring 1% chlorezene solution t.i.d., and wet dressings left on continuously.

(3) Intravenous injection of 150-300 c.c. of 2% saline every other day, if the heart is in good condition. This, he said, would increase the blood volume and improve circulation.

(4) Beurger's exercise, which consists in raising both feet above the horizontal until blanching occurs; then resting the feet on a horizontal; and then to lower the feet below the horizontal until rubor sets in; this course to be repeated 7 or 8 times, and called a séance; several séances to be performed during the day.

These treatments were carried out religiously on this patient and a number of others, and results on the others were fine, but for this patient were not at all effective. One month after institution of these treatments, the patient developed an erysipelas of the face, which responded to treatment, but her general health was failing continuously. She became more or less apathetic, slept continuously and would refuse to even talk. Five weeks after commencement of the treatments, she complained of pain high up in the leg and thigh, which was covered with large blebs which, when ruptured, showed beneath a well-advanced thrombophlebitis. Alum acetate wet dressings were applied continuously with no effect on the progress of the disease.

Jan. 26, 1932, immediately following an intravenous, patient vomited a large amount of greenish fluid; broke out into a profuse perspiration; breathing was labored and the pulse became imperceptible. However, she satisfactorily recovered from that reaction but about 7 days later, relapsed into deep coma and expired.

Case 2. F. Z., aged 43, white female, was brought to the hospital in an unconscious condition. History obtained that she was perfectly well and had just partaken of a heavy meal, when she left for the bathroom, and suddenly fell to the floor unconscious. No history of any previous

illness. In the words of her husband, she was "strong and healthy all her life".

She was an obese female, lying in bed, unconscious, breathing stertorously, both cheeks ballooning in and out with respirations; face bathed in profuse perspiration; could be aroused with a strong stimulus but would gaze on the ceiling, moan, and go back into deep sleep. Pupils were small, slightly irregular and reacted to light; tongue was clamped tightly between the teeth, making it impossible to examine the throat; no evidence of any cranial nerve involvement.

The breath sounds were harsh, and a suspicious small area of prolonged expiration was detected posteriorly on the right upper lobe. The heart was slightly enlarged to the left but was regular, rhythmical and forceful.

On admission, temperature was 103.6°; pulse, 85; respirations, 30; blood pressure, 200/110. Urine negative. Blood: Hemoglobin, 80%; R.B.C., 6,000,000; W.B.C., 12,300; Polys., 70; Lymphs., 24; monocytes, 4; eosinophiles, 2.

On the basis of these findings, the following diagnoses were suggested: (1) Influenzal type of pneumonia, with atypical onset; because of the fever and the area of consolidation. (2) Intracranial hemorrhage was suspected, due to the high blood pressure, but the location could not be determined because of lack of coöperation. However, presence of pin-point pupils, later on suggested possible involvement of the pons or infracortical region. No pyramidal tract signs were elicited. (3) Encephalitis; because of temperature and fact that she could be aroused slightly.

Patient was given supportive treatment but failed to rally. Her temperature remained high the following morning; pulse increased in rate; but respirations remained the same. The patient received no morphine, yet the following night it was noticed that the pupils were pin-point in size and did not react to light. A spinal tap was done, but the report was negative. The following day the breathing became Cheyne-Stoke's in type, patient could not be aroused, and on the fourth morning the temperature jumped to 105.4°, the patient became markedly cyanotic and expired at 8.20 a. m.

MERCER COUNTY

A. Dunbar Hutchinson, M.D., Reporter

The Mercer County Medical Society met in the Stacy-Trent Hotel, on March 9, with President Wilbur in the chair.

The regular order of business was suspended, and the President introduced Dr. David Riesman, Professor of Clinical Medicine, University of Pennsylvania, who addressed the society on the subject: "Diagnosis and Treatment of Myocardial Diseases".

Dr. Riesman described cardiac diseases as being divisible into 5 types, named as: Valvular, muscular, hypertensive, cardiovascular and pericardial. He defined myocarditis, with the differential findings shown in myocardosis, in which the microscope displays the degenerative process in the muscle fibers. Focal infection, and the effect of alcohol and tobacco were mentioned as contributing causes in diseases leading to myocardial involvement.

In the treatment of heart conditions in general, the speaker emphasized rest, both mental and

physical. Surgical and medical treatments were defined in a most interesting and instructive manner.

A rising vote of appreciation was tendered the speaker.

Representatives from the Mercer County Pharmaceutical Association were invited guests, and spoke in hearty desire to coöperate with the medical profession in maintaining the high standards of pharmaceutical preparations.

Dr. Haggerty reported upon the progress of the several "bills" now in process of legislation, and appealed for more earnest support upon the part of members of the Medical Society.

Dr. Connelly reported on the State Society-Rutgers Post-Graduate Courses, and requested immediate registration for completion of the several "Courses".

The President appointed Drs. Ackley, Zandt and Adams to draw suitable Resolutions concerning the death of Dr. Francis M. Arthur, March 5, 1932.

The following resolution was moved and adopted, in answer to a communication from Loring A. Schuler, Editor of the Ladies Home Journal: "In accord with progressive ideals and the educational attitude of practitioners of obstetrics, toward preventive medicine; and, in support of the contention by reputable physicians that a large percentage of maternal mortalities are due to puerperal sepsis, which is definitely preventable; the Mercer County Medical Society heartily endorses any legitimate effort, through recognized channels, not inimical to the high standards of the medical profession, that will enhance the value of conscientious physicians to the community, in preventive and curative medical practice."

The application of Dr. W. K. McCandliss was read and referred to the Membership Committee.

MONMOUTH COUNTY

Harold A. Kazmann, M.D., Reporter

The Fitkin-Morgan Memorial Hospital, Asbury Park, opened on Monday, February 29, and the Monmouth County Medical Society wishes the institution success in the new quarters and hopes that the hospital and staff will have a pleasant and most prosperous future.

The name of Dr. J. C. Clayton, of Freehold, was inadvertently omitted from the January report of the Staff of the Fitkin-Morgan Memorial Hospital, and we hasten to correct this omission. He is Attending Physician and Cardiologist to the institution.

The monthly meeting of the Monmouth County Medical Society was held at the Fitkin Memorial Hospital on February 24; Dr. Stanley Nichols presiding.

A recommendation of the Executive Committee, regarding the use of advertising space in the classified section of the telephone directory, was discussed and it was voted that hereafter only the address, name, and telephone number of the doctor would appear in this section.

A recommendation of the Executive Committee that an official list of physicians be given to the State Board of Children's Guardians to do work for the Board at a set fee, lower than the minimum fee of this society, was considered, and

it was decided to leave this matter up to the individual physician.

The contract of Dr. Harvey S. Brown for medical work at the Briar Hill House, was approved for this year, but it was recommended that next year, when the budget is being made up, the salary be raised to \$2400, which would be commensurate with the amount of time that the work entails.

A committee, composed of Drs. Harry B. Slocum, J. F. Fisher, J. F. Ackerman, H. A. Kazmann and J. E. Maher, was appointed to continue the work begun by the 2 hospitals to procure "contagious units" for the Monmouth Memorial Hospital and the Fitkin Memorial Hospital. This movement is fostered by the Monmouth County Medical Society.

It was decided to have our dues payable September 1, in order to avoid the present complication of having a number of our men paying late. This delinquency prevents the society from having the full number of Delegates to the State Society to which our real membership entitles us.

After the business meeting, a most interesting and instructive set of papers was read:

- (1) "Pathogenesis and Treatment of Pelvic Inflammatory Disease", Dr. R. A. MacKenzie.
- (2) "The Treatment of Pregnancy Toxemias", by Dr. Edward G. Waters, Jersey City.
- (3) "The Obstetric Forceps; its Utility and its Dangers", by Dr. S. A. Cosgrove, Jersey City.

The discussion was headed by Drs. R. B. Wilson and K. G. Brown.

PASSAIC COUNTY

Wayne W. Hall, M.D., Secretary

A combined meeting of the Bergen and Passaic County Medical Societies was held March 8, in the ball-room of the Alexander Hamilton Hotel in Paterson. The scientific program was preceded by a Dinner attended by over 200 members of these societies and their guests. The Guests of Honor, on this occasion, were: Dr. Morris Fishbein, Editor of the Journal of the American Medical Association; Dr. Henry O. Reik, Editor of the Journal of the Medical Society of New Jersey and Executive Secretary; Dr. J. Bennett Morrison, Recording Secretary of the Medical Society of New Jersey; and Dr. Ira Wile, Associate Pediatrician, Mt. Sinai Hospital, New York City. Dr. John F. Hagerly, President of the Medical Society of New Jersey, was absent because of illness in his family.

The regular business session was omitted, and the special program was immediately begun.

Dr. Morris Fishbein, the principal speaker of the evening, discussed "The Changing Nature of Medical Practice" in a very thorough, most interesting and entertaining manner. Dr. Fishbein reviewed the development of Medical Practice from 1870 to 1875 when diagnosis was determined by the aid of the 5 senses—examining the tongue, feeling the pulse, auscultating with the ear, noting the temperature, and looking at the excretions, with some attention to the history; through 1880, when Robert Koch and Louis Pasteur made their revelations on the germ causation of disease and visualization was possible by aid of the cystoscope, proctoscope, etc.; then the electric amplification of the heart-beat, on to the radical changes and enormous strides made by the aid of laboratories

and mechanical aids, to say nothing of the x-rays. It was stated that panel practice in England and contract practice in this country have proved inferior. Group practice has been affected by the current economic depression. Dr. Fishbein cited a number of revealing statistics relating to the growth, conduct and direction, and cost of medical work, including its allied interests. X-ray work has grown 115% since 1905. Specialty practice has increased from less than 5% in 1900 to 15% in 1915; to 30% in 1930; and now 55% of the medical students have already chosen their fields. The general practitioner takes care of 90% of average diseases.

A motion was made, seconded, and carried that a vote of thanks be tendered Dr. Fishbein.

Dr. Ira Wile gave an address entitled "Child Behavior as a Medical Problem". Dr. Wile's lecture was very practical and instructive and particularly timely when so much interest is evinced in literature, press and club work, both by medical and lay people, in the child movement as a whole.

We were also honored by interesting addresses by Drs. Reik and Morrison.

The meeting appeared a very successful and harmonious one.

Adjournment took place at 11:30 p. m.

MORRIS COUNTY

Marcus A. Curry, M.D., Reporter

The regular quarterly meeting of the Morris County Medical Society was held Thursday, March 24, in the Recreation Hall of the Cafeteria Building, at the State Hospital, Greystone Park. President Krauss presided over a well attended meeting with approximately 60 members and guests present. Routine business was transacted, including reading of the minutes of the January and February special meetings, and of the meetings of the Executive Committee; the latter indicating that a Symposium on Tuberculosis will be held during the month of May at Shongum Sanatorium (the Morris County Tuberculosis Hospital); and, also, that Dr. Sutphen has been appointed the Morristown Member of the George Washington Bicentennial Commission.

There was 1 proposal for membership, that of Dr. Morris Harris, of Morristown, which was duly referred to the Credentials Committee.

The attraction of the evening was an address by Dr. Arthur W. Bingham, who gave freely of his experiences, observations and conclusions as an obstetrician, and elucidated by lantern slides the results accomplished at Sloan Maternity Hospital in New York.

Dr. Bingham opened by saying his address would be along the line of "practical obstetrics", most of it not new, but that he wished to impress a few points which seemed to be of importance just now when "maternal welfare" is receiving so much attention; and it is only fitting that the Medical Society of New Jersey should take an active part in the campaign for reduction of mortality rates; that Morris County is to be congratulated upon being one of the first County Societies to organize for participation; being, in fact, about 3 laps ahead of other county groups and doing a great work. Dr. Bingham's address outlined the plan for coördination of the commissions so that they will not conflict, and he urged that medical

men should arouse from their lethargy and assume leadership in all efforts to solve health problems.

Discussion was active and participated in by Drs. Williams, Rice, Thomas, Ward, Pinckney, Rubin, McMahon, Ranger and Krauss; leaving no doubt that the subject was opportune.

After the formal meeting, adjournment was taken to the cafeteria for refreshments.

UNION COUNTY

Summit Medical Society

Roderick Byington, M.D., Reporter

The regular monthly meeting of Summit Medical Society was held at Wallace Pines on Tuesday, February 23, with Dr. Watson B. Morris entertaining. Dr. Krauss acted as Chairman, in the absence of President Campbell.

The speaker of the evening was Dr. Morris, who read a paper entitled "The Acute Abdomen". He laid particular stress on the necessity of making a most careful survey at the first examination of the patient, taking into consideration the family and past and present history of the patient, in order to make an early and, so far as possible, a correct, diagnosis. He laid stress on the fact that the "acute abdomen" was not, as a rule, the result of virgin pathology, but in the majority of cases was an end-result of a chronic, pathologic process, which had probably given evidence of its presence for a more or less prolonged period of time; and, an early diagnosis is necessary, particularly in cases of appendicitis, if our present mortality rate is to be reduced.

Many points essential in making a differential diagnosis were brought out, and various explanations made for the apparently unnecessarily high mortality in abdominal cases, including untimely and unsuitable operations. He also laid stress on the high mortality, because of the lack of the intimate knowledge of living, surgical pathology, and because of too great a reliance on laboratory findings.

The paper was discussed by Drs. Lawrence, Bowles, Bensley, Miller, Keeney, Macpherson, Dengler and Larrabee.

In the closing remarks, Dr. Morris again appealed to the general practitioner on the necessity of careful consideration of the subjective and objective symptoms and signs, which would help to arrive at a diagnosis, and the advisability of a consultation with the surgeon.

After adjournment, members and guests were served with refreshments.

Obituaries

ARTHUR, Francis M., a prominent physician, of Hamilton Square, Trenton, died on March 6, 1932, at the age of 56, after an illness of 2 weeks.

Born in Orwell, Vermont, Dr. Arthur studied at Baltimore Medical College, graduating in 1902. He came to Hamilton Square several years later and maintained his residence on Nottingham Way since.

For many years he was a member of the Mercer Hospital Staff.

Active in fraternal circles in his community, Dr. Arthur was a member of Gothic Lodge, No. 270, F. and A. M.; Odd Fellows Lodge No. 97; Jr. O. U. A. M. Council No. 54; and Hamilton Grange No. 79. He also was affiliated with Scottish Rite Masons and the Shrine in Trenton.

Dr. Arthur was President of the First National Bank of Hamilton Square. He was one of the town's most prominent citizens, and news of his death came as a shock to the community. He was a member of the New Jersey Medical Society.

His survivors include his widow, Mrs. Sarah P. Arthur; 2 daughters, Mrs. Marjorie Fogg and Miss Marion Arthur; a son, John Arthur; his mother, Mrs. Helen Arthur, of Hamilton Square; and 3 brothers, Robert Arthur, of Burbank, Cal., and Thomas and Roma Arthur, both of Orwell, Vt.

BUCK, Abijah O., of Hillside, died of a heart attack, at his home, February 15, 1932.

Born in Vermont, he graduated in medicine from the Hahneman Medical School, of Philadelphia, later from the University of Pennsylvania.

He was chief surgeon at Alexian Brothers Hospital and a member of the Major Staff at St. Elizabeth's Hospital, both in Elizabeth. He was also a Staff Member at Beth Israel, the Homeopathic Hospital in East Orange, the Presbyterian Hospital and surgeon for the Singer Manufacturing Company in Elizabeth.

Dr. Buck was a member of the American Medical Association and the Union County Medical Association. During 1931 he was Board of Health physician in Hillside. He was a major in the United States Army Reserve Corps, having been physician at the army camp established at the University of Nebraska in the World War. This camp received a distinguished rating for having the lowest rate of influenza among the army camps.

THOMPSON, D. Clark, of Bloomfield, died of a heart attack on board the S. S. Pastores, bound for the West Indies, February 20, 1932.

Dr. and Mrs. Thompson sailed at noon for a cruise of several weeks. Dr. Thompson, although tired from work, appeared in good spirits when he left Bloomfield. He suffered a slight illness about 2 weeks ago, when he decided to take the trip. He was stricken soon after the ship left New York.

Born in Stanhope, 46 years ago, Dr. Thompson was educated at New York University. He went to Bloomfield 17 years ago. He became well known as one of the leading surgeons in that section and was formerly president of the staff at Mountain-side Hospital.

Dr. Thompson was a member of the Clinical Society of the Oranges, Academy of Medicine of New Jersey, Associated Physicians' Society of Montclair, New Jersey Medical Society and Essex County Medical Society. He was a member of the Glen Ridge Country Club, a trustee of Park Methodist Episcopal Church, Bloomfield, a Director of the Bloomfield Bank & Trust Co. and a member of the Bloomfield Elks Club. During the World War he served overseas with Hospital Unit No. 24 and was a member of Bloomfield Post No. 20, American Legion, and Bloomfield Chapter, S. A. R.

Besides his wife and brother, Dr. Thompson leaves 3 sons, Robert, David and John, and a sister, Mrs. Jennie Christine of East Orange.

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MEDICINE AND THE SOCIOLOGIC ASPECT OF INSANITY, FEEBLE- MINDEDNESS, AND ANTI- SOCIAL BEHAVIOR*

MICHAEL VINCIGUERRA, M.D., F.A.C.P.,
Elizabeth, N. J.

The topic which I have chosen for your consideration this evening is "Medicine and the Sociologic Aspect of Insanity, Feeble-mindedness, and Antisocial Behavior"—that is, delinquency and crime. As far as I can remember, this phase of medicine has never been presented to this society. I desire, therefore, to bring it before you, and to ask you to consider whether or not our society should devote some time to the working out of this pressing problem.

I will not weary you with statistics showing the number and the cost to the state of these social morbidities, beyond calling your attention to the report of Mr. Prentiss, of the National Crime Commission, who estimates that there are in this country 2,000,000 criminals, and that the cost of law enforcement alone in the United States amounts to \$4,000,000,000 a year. And he goes on to say that in time of peace the greatest public expense, next to that of education, is, by far, that of combating crime. This cost, moreover, does not take into account the various big losses sustained as a result of crime. But, if you add to it the amount expended for the main-

tenance of the insane and the feeble-minded, you may gain some idea of the appalling drain upon the nation.

These startling figures of dollars and cents are not, however, in themselves, the factors which arouse anxiety. What is most alarming is the fact that, notwithstanding the past 25 years' concentrated effort, we still find it difficult to cope with the situation. Statistics show that mental disorders are on the increase. New York State alone shows an increase above previous years of 70,000 cases. Other states report a relative increase. What is true of the insane is also true of epilepsy, feeble-mindedness, delinquency and crime. More hospital beds are occupied by individuals affected by mental disorders, than by all other types of patients put together. No matter how fast we build hospitals, jails, and other institutions, they are always over-crowded.

The problem to be solved is fundamentally a scientific one, and the medical profession is in a position to play the leading rôle for the correction of these chronic morbidities, as it has already done for the acute ones. Taking an inventory of the entire problem, we are forced to seek re-orientation. Ill-formed doctrines and social reforms need to be scrutinized and evaluated in the light of our present scientific knowledge. The profession should take a stand against the prevailing semiscientific atmosphere which has been created, with all good intention, by enthusiastic laymen and by some in our own ranks, and should make a concentrated effort to accelerate a really scientific program. It should be the leader and guide in this phase of humanitarian endeavor.

* (Read before the Union County Medical Society, October 28, 1931.)

It is a reproach to our intelligence, that we as a people, proud in other respects of our control of nature, should have to support about 500,000 insane, 1,500,000 feeble-minded, and 2,000,000 delinquents.

From time immemorial the medical profession has enjoyed the privilege of preventing, curing, or alleviating disease. Its humanitarian and altruistic ideals have gained for it the name of the "noble" profession. Ever conscious of their responsibilities, its members have relentlessly concentrated their energies upon the relief of human suffering; and their efforts have not been in vain. They can look with a sense of satisfaction at what they have accomplished, especially in the prevention and cure of infectious diseases, and in the perfecting of surgical technic.

So much cannot be said of social medicine. In this particular field of endeavor the medical profession has been led, instead of leading. Indifference on its part seems to have resulted in the substitution of scientific direction for active guidance of the public. Feverishly engaged in the pursuit of microorganisms, it has seldom lifted its eyes from the microscope to behold the chronic plagues which are corroding society. One of the basic factors which has contributed to such a state of affairs may be the fact that acute disease immediately captures our sympathy and solicitude, while social disease, on the other hand, arouses instead a reaction of repulsion, and, in the case of delinquency, even a desire for vengeance on the part of the public. From these instinctive reactions not even the members of the medical profession are exempt. Moreover, in other branches of medicine there is more coöperation among physicians than in the field of social medicine; more realization of the importance of detecting early signs and symptoms, which are followed up with interest and concentrated effort from the time of their inception to the postmortem examination; better preparation on the part of the physician to cope with the problems at hand and a more scientific evaluation of the results. For instance, look at the coöperation that exists between medicine, surgery, and the laboratory. Consider the importance attached to

the detection of early symptoms of tuberculosis or cancer; the elaborate preparation required for practicing the various specialties; the care taken by the hospital staff to classify the type of operation each of its members may perform, in order to obtain the maximum good.

In the case of nervous and mental diseases, on the other hand, the profession appears apathetic and, unconsciously, less scrupulous. For example, when parents bring their children to us with a history of enuresis, tantrums, nervousness, or twitchings, we usually try to pacify them by saying that the children will outgrow these symptoms. When, in later years, these very children consult us, we may inform them that they are a little nervous, and prescribe a sedative or a vacation. If one of them is sent to an institution, commits suicide, or becomes guilty of an antisocial act, we dismiss the matter from our minds with the reflection that he was queer from infancy. In performing any surgical operation, even such a slight one as curettage or tonsillectomy, no one dares now to undertake it without suitable preparation; the profession will no longer tolerate it. But, in the handling of mental disease or delinquency, we show no such hesitation, nor does the lack of it arouse any resentment on the part of the profession, notwithstanding that we admit the prerequisite of special training, and that the scalpel which dissects human behavior is sharper and more delicate than the one used in surgery.

These remarks should not be interpreted as criticism. I am aware that the profession is not really at fault. Any new scientific enterprise is of slow growth, and mental hygiene is a relatively new branch of medicine. Our medical schools have not prepared us along this line as they have for other specialties, yet, notwithstanding this lack of adequate training, we have to our credit considerable success in filling this lacuna. It was only a few decades ago that Christian Science stimulated the medical profession to initiate new forms of therapy in the handling of mental and nervous disorders, and now the universities are providing adequate instruction in this line of medical endeavor. In most of the large hospitals, de-

partments of neuropsychiatry are being created, and physicians everywhere are beginning to realize that bodily and mental disorders are interdependent afflictions of the same human being. The gap that separated them in the past is becoming less apparent. Scientific effort is better distributed. These accomplishments, in such a short space of time, are really great strides in the right direction. The time is not very far distant when the profession will muster very gratifying results, in this as in other branches of medicine, for the benefit of society and humanity. In fact, dynamic psychology has already revolutionized thought and education for the well-being of the individual.

It would seem that our judgment is less at fault in considering the performance of a simple piece of machinery than when we attempt to judge human behavior. For instance, if a watch runs too slowly, too fast, or stops altogether, we take it for granted that the mechanism is out of gear, and proceed to investigate what it is that has gone wrong and caused interference with the proper function. But how differently we react when we face behavior which shows a human being to be out of gear with the social rhythm! We immediately pass judgment on the acts performed, instead of investigating, as the watch-maker does with the watch, what has gone wrong in the human mechanism which might explain its obnoxious performance. This method of thinking shows that our judgment springs from instinctive reactions instead of from scientific and logical investigation. Reason has been clouded on this issue for many centuries, and this mistiness seems to be linked with the conception of the freedom of the will.

In the light of scientific investigation, it would seem that such a method of reasoning is fallacious. The scientists, as well as the great thinkers of all ages, from Plato to Schopenhauer, lead us to believe that freedom of the will cannot exist in a physical world.

Biology has much to say on this subject. In the past 2 decades, it has been proved experimentally that the thousands of small particles, the *genes*, in the chromosomes, determine the anatomic, physiologic, mental and

behavior characteristics of the individual. Biochemistry, pathology and psychopathology have also recently made contributions which explain certain mental symptoms and antisocial acts on the basis of findings in chemical reactions and cytology. For example, in delinquents there may be a lack of calcium and copper in the blood, which increases the rapidity of nerve action as thyrotoxin accelerates the heart-beat.

In addition to mental disorder, there is another great social problem which the medical profession will be called upon to help in solving—that of criminality. Social agencies have already introduced our service in the juvenile courts. Although headed by jurists or laymen, these deal fundamentally with problems requiring a scientific solution. The part that the profession plays at present is largely to give a moral tone to the judicial phase, but as knowledge of mental hygiene becomes more widespread, and better results are demanded in the handling of delinquents, a larger contribution on our part toward solution of the problem will be called for by society. Certainly the disquieting results obtained in handling insanity and delinquency by the old methods are sufficient evidence that the treatment administered has not been efficacious.

The conception of man's free will has done much harm and greatly retarded scientific progress, particularly in dealing with delinquency and crime. The jurists have admitted that treatment by commitment has utterly failed. Mr. Boston, President of the Bar Association, said at the convention in Atlantic City, September 15, 1931: "The Attorney General of the state might well consider whether our civilization is able to deal with the problems of crime. Despite elaborate and expensive legal machinery, crimes of violence are on the increase. Prevention of crime appears impossible. Jails are as full as ever. Our present methods of treating convicts have scarcely accomplished anything."

The failure of the legal profession to cope adequately with these problems is attributed by the scientists very largely to lack of appreciation of the basic scientific link which exists between an act performed and the condition

of the performer at the time of the action. Legal treatment is based on conceptions of centuries ago. Everything changes except the law, notwithstanding that criminologists such as Lombroso and Ferri have for decades called attention to the need of scientific readjustment. Other reasons are lack of knowledge of the science of criminology, and the absence of regular and frequent meetings with the sociologist, the psychologist, the psychiatrist, and the social agencies. Attention has also been called to the fact that in countries where a scientific program has been instituted, the results are encouraging and much better than ours. The lack of understanding between science and the law with regard to the knowledge and treatment of the problems of crime has not been very favorable to the development of any satisfactory liaison. Jurists and other legally trained people have so far shown but a slight awakening to the possibility of applying scientific methods to the great task of protecting society.

There have been practically no well-rounded efforts to check the career of criminals through attention to all the complicating factors of causation which need to be taken into consideration. The legal therapist who prescribes some such treatment as a period in jail has little or no notion of what this will do either for the offender or for society. The law appears to be very little concerned with results; but if the obtaining of results is not the main business of the law, then it is a strange phase of human endeavor.

For many years it has been questioned whether it is within the province of lawyers to diagnose, classify, and punish delinquents and criminals. Some 20 years ago, an English jurist, Justice Rhodes, turned to the medical profession, in an article in the *British Medical Journal*, and asked whether the dealing with offenders was, after all, a job for the law. He quoted English criminal statistics which showed that in an average year more than 10,000 of those convicted had each been previously convicted at least 20 times.

As the scientific aspects of medicine and surgery are discussed in the clinical societies, I feel that it might be instructive and profit-

able if the sociologic aspect of medicine were to be taken up at a meeting of this society. Certainly there is much ground to cover aside from what we have hinted at. For instance, to take note of how we are regarded by ourselves, our patients, and society at large. Surely the profession does not appear in the eyes of the public as it did a few decades ago. To the law and to people at large, the medical profession seems to have been divested of some of its most important attributes. In the eyes of the law, the members of the profession come under the same jurisdiction that governs the conduct of the butcher, the baker, and so forth. Unscrupulous patients do not hesitate to plead unjust causes against reputable physicians, and easily find sponsors. Members of unscientific cults are held in the same esteem as regular practitioners, and receive the same protection. Magazine writers seem to take delight in publishing derogatory remarks about the medical profession, and books written with the same purpose are not few.

Times have changed. In the past, when medicine was viewed in its true light, reserve on the part of the profession was looked upon as a virtue. Today, it has lost its prestige. Advertising has taken its place, and cleverness and make-believe now masquerade as cardinal virtues. Yet, certainly the medical profession has kept alive the ideals of our forefathers. In the last few generations it has made such strides as never before, and is benefiting humanity more than it ever did in the past; but in the eyes of the law, the politician, and the public at large, it appears as if it were slipping. Why is it, then, that it does not maintain the same high plane of dignity as of old? Why does it find itself cramped, or shoved aside by unscientific cults and by selfish interests? These and many other questions deserve the earnest consideration of this society.

From these few facts, hurriedly and disconnectedly put together, it can be seen that these chronic morbidities have long been and will continue to be a challenge to human ingenuity. In our attempt to abate them, up to the present time, we have to admit defeat.

The magnitude of the problem, the large number of people affected by it, the appalling cost to the state which it entails, and the apparently insurmountable difficulties which it presents may, taken together, be considered one of the greatest plagues which has ever afflicted humanity. But we have become so accustomed to crime, disease, and degeneracy that we regard them as necessary evils. The fact remains, however, that in the solution of these problems, the heaviest burden rests upon the medical profession.

Of the many measures proposed to combat social morbidities, education is considered the most essential. It should operate analogously to the way it does in the fight against tuberculosis, cancer, diphtheria—but to obtain results it requires the same coöperation on the part of physicians, social agencies, and the public that is given in the attempt to control other diseases. The task is more arduous than any other that medicine has tackled, and for that reason even greater effort and coöperation will be needed.

Our colleagues across the Atlantic have been the moving spirits in trying to find scientific solutions for these vexing and perplexing problems. In the light of facts at hand, they have conceived a more scientific program which may lead to the better handling of delinquency and crime. By more widespread diffusion of scientific knowledge along these lines, the medical point of view has in part come to supplant the legal one. In prisons, scientific classification and therapy have been instituted, and the old type of personnel has been replaced by teachers, psychologists and psychiatrists. The medical profession on our side of the Atlantic cannot afford to do otherwise than follow this example. It has led in other branches of human endeavor; I am sure it will not lack the enthusiasm to succeed in this field.

The profession has never had greater opportunity for service, along both scientific and civic lines, than it has today. The social atmosphere has never before been so favorable. Organizations, such as the Rotary Club and Kiwanis, composed of the responsible citizens in the communities, have sprung up all over

the country, ready to serve in any good cause. They are animated by a spirit which puts service above self, and are grateful for any guidance or any opportunity to serve. These organizations are not political in character, but are governed by ethical principles. They are bound together by high ideals and human sympathy, and they have social justice at heart. In this respect they can be called our co-workers, endowed with noble attributes at the service of humanity. This large group of intelligent citizens, who sympathize with our ideals, is a powerful agency for the propagation of facts, as well as for the curbing of ill-founded enthusiasms. Enthusiasts of all descriptions make use of their receptivity. Medicine alone holds aloof.

It is the earnest desire of people of all nations to enjoy peace on earth and to make this world a better place in which to live. Eager to reach this desired goal, the presidents of republics, premiers, statesmen, university professors, and other leaders in all parts of the world, are exchanging visits with one another, and becoming acquainted with one another's viewpoints, through personal contact. The press, the radio, civic organizations and international airplane tours are all utilized in the attempt to promote better understanding and good fellowship.

The medical profession alone has not felt the necessity to react adequately to this new social atmosphere which envelops us. It keeps itself in solitary seclusion. Philosophically, such an aloof attitude implies strength, self-reliance and self-sufficiency, but sociologically its influence is very limited, weak, and ineffective. Perhaps the analogy would not be too far-fetched if we were to compare the profession to a patient who in his own line of work is efficient and successful, and whose only symptom is seclusiveness. He may impress us as having a mental condition brought about by an inferiority complex regarding lines other than his own, and, because of his seclusive personality, having very little influence on his fellow men. The medical profession, as a group, is to other social groups, as such a patient is to other men, and our seclu-

siveness may be interpreted by them in an analogous way.

If the medical profession is not disposed to make contact with this new state of affairs, from the medical point of view, civic duty compels it to do so. When corruption is so universal, when vice passes for virtue, and when both property and life are unsafe, the profession could act as a nucleus about which to gather the well-meaning citizens of our communities. Fusion of the qualities of cohesion among ourselves and of adhesion from others, might become a moral force of untold potentiality. Such a group, bound together and animated by altruistic feelings and humanitarian ideals, could not fail to work toward social welfare.

ACUTE EMPYEMA THORACIS

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The proper handling of pus collections in pleural cavities devolves itself into: (1) Prompt recognition. (2) Application of adequate and proper surgical drainage for each patient. (3) Selection of the best anesthesia for operation. (4) Meticulous postoperative care and judgment.

These divisions are not here taken up in their order under the above headings necessarily; divisions 3 and 4 are shown in the case reports, particularly, but also in various parts of the paper.

There is too little said in medical literature regarding the recognition or diagnosis of empyema. We, apparently, take it for granted that it is ordinarily easy to diagnose, even for the least experienced physician, but, in this surmise, we are mistaken. Even cases that have been closely watched by both physician and surgeon are frequently baffling, to wit:

Case 1. A white man, 62 years old, developed left basal pneumonia March 27, 1931, and, from the beginning, there were signs of fluid in the pleural cavity and he was cyanotic. He was treated under an oxygen tent, and given Felton's serum; but on the fourth day

he developed urinary incontinence, due in part to an enlarged prostate, and an in-dwelling catheter had to be inserted. He ran a very stormy course and signs of fluid were persistent. On the eleventh day, a bedside radiograph was obtained but the report was inconclusive as to presence of fluid, so, on the thirteenth day a diagnostic aspiration was done and that revealed the presence of thin serum containing flakes; and culture from that serum, of which 70 c.c. were removed, showed pneumococci. Next day found him markedly improved; toxemia was less, cyanosis cleared, and his temperature was normal. On the fifteenth day aspiration was repeated and 50 c.c. fluid of the same character removed. From this date he showed considerable improvement but his heart was giving us some anxiety. During the night of the sixteenth day he developed auricular flutter and his life was despaired of. However, he recovered from that attack, and on the nineteenth day was sent to the roof-garden in his bed. He had begun to complain bitterly of his bladder, and his urine was stringy with pus, but, in spite of that, he gained strength and his temperature remained normal except for an occasional rise to about 99.2°, which was interpreted as being due to the urinary tract infection. This went on until the thirty-second day of his illness (18 days after last aspiration of chest), when his temperature went up to 101° F. and, in spite of persisting dulness in his left chest, we thought the high temperature was due to the urinary tract infection. Although vigorous treatment was given that tract, the temperature remained elevated and he began to lose strength, so that, on the thirty-ninth day, another diagnostic aspiration was done and thick greenish-yellow fluid withdrawn. The following morning, a closed thoracotomy was done, and from then on he proceeded to recover. He still wears an in-dwelling catheter, and, as soon as his strength permits, a prostatectomy will be performed.

We see here a clear-cut, typical case of empyema, from the standpoint of physical signs making the diagnosis, but the patient was allowed to go weeks before a correct interpretation of the signs was made. In re-

view, one might say that such a mistake is unforgivable, and I am inclined to agree with that view, but the very point I wish to make is that these mistakes occur frequently and they are not made only by the inexperienced practitioner.

How are we to correct this situation? First of all, we should respect our physical findings and not rely so much on accessory data: blood counts, chest roentgenograms, condition of patient. If we are going to respect our physical findings we must know what findings denote fluid, and especially must we differentiate between the findings of pneumonia, delayed resolution, and thickened pleura. Next, we must suspect empyema in every case of lobar pneumonia in which the temperature remains above normal at the end of 2 weeks and a radiograph shows "unresolved pneumonia", and we find on physical examination a dull-to-flat note associated with markedly decreased or absent tactile and vocal fremitus and barely audible breath sounds; then, leaning toward empyema as the cause of these physical signs, and, regardless of the x-ray picture, a needle should be inserted for diagnostic aspiration. I feel very strongly that aspiration should never be used until after an x-ray examination has been made, if such facilities can be had. It is my belief, and I have seen it proved in at least 2 cases, that empyema is occasionally caused by diagnostic aspiration; the needle passing through uninfected pleura into infected lung, and then withdrawn through the uninfected pleura.

It is not my intention to decry radiographic testimony in these cases, but to insist that x-ray pictures often cannot differentiate between an unresolved pneumonia and the presence of fluid, unless there is a fluid level. The wise course to take, when the x-ray findings are not in accord, is to consult personally with the head of the X-Ray Department and let him in on all the facts of the case.

After aspiration, which should be done even though one is sure of the diagnosis, a bacteriologic study of the removed pus is advisable. A smear and a culture report help the surgeon decide on the proper method of drainage.

Bacteriology. By far the great majority of cases are due to either the pneumococcus or streptococcus; occasionally one sees a case due to colon bacillus, staphylococcus, or to the bacillus of tuberculosis.

Pathology. In rather concise terms, one meets with the results of infection due to (1) pneumococcus, or (2) streptococcus. The reaction to pneumococcus is one of rapid walling off, forming a walled-off abscess cavity, and the generation of rather thick, greenish-yellow pus; while the streptococcus produces an almost opposite reaction; i. e., there is a thickening of both visceral and parietal pleuras, but with little effort at walling-off into pockets, and the pus tends to be fairly thin and, usually, of a distinctly yellow or opalescent-yellow color. The reaction to *B. coli* and staphylococcus is quite similar to that produced by the pneumococcus, with possibly a greater tendency to multiloculation. The reaction to *B. tuberculosis* is a marked thickening of the visceral pleura and varying thickening of the parietal pleura, but with feeble efforts at walling-off; as evidenced by the numerous thin, string-like or cord-like adhesions. Of course, this is in addition to the parenchymal pulmonary pathology and that previously existing in the pleural sac.

Treatment. When we realize that the pleural reactions in some cases are practically the direct opposite to those of other patients, it is obvious that the treatment cannot be the same for all types of empyema. In general, treatment has to be governed by the patient's general condition.

Two rules that are almost axiomatic with us: (1) Never do a rib resection, or any other open operation, until frank pus is obtained by aspiration. Serous or seropurulent fluid call for aspiration only; repeated as often as required to relieve respiratory or cardiac embarrassment, until frank pus is obtained. (2) Massive empyema yielding frank pus, accompanied by marked cardiac or pulmonary displacement, should never have a primary operation that opens the abscess cavity.

Either of the above types of cases requires careful handling with graded operative procedures in order to avoid sudden or gradual

collapse, brought on by what has been referred to as "mediastinal flutter" or "paradoxic breathing".

Patients in the first class of cases are handled in the following manner: They are always primarily treated by needle and syringe aspiration; performed 1-5 times daily; and 5-7 days later, when the serum or seropus becomes frank pus, this is discontinued and canula-trocar closed drainage is instituted. The patient, in this way, improves in strength; his febrile reaction becomes normal; displaced organs assume a more nearly normal position; the mediastinum becomes fixed; and, the empyema cavity becomes walled-off.

In the second group of cases, syringe and needle aspiration is not used, but the primary operation should be the intercostal introduction of a rubber tube through a trocar and canula.

Closed drainage consists merely of the intercostal introduction of a canula and trocar through which a No. 18 to 24 F tubing is introduced under infiltration anesthesia (1% novocain); it hardly amounts to an operation and there is no postoperative reaction. After introduction of the tube, 50 to 100 c.c. of pus may be aspirated and then, every 2 hr. the Resident should aspirate a like amount, until the second or third day, when the tube should be connected to another tube leading to a bedside bottle whose end is kept completely submerged in an antiseptic solution; thus establishing continuous water-sealed drainage. At the end of about 5 days, the drainage tubing can be cut off, close to the chest wall, and then be allowed to drain into fluffed gauze dressings which may be changed by the nurse *pro re nata*.

By careful attention, most empyema patients treated as described above will recover, but one should not become so enthusiastic as to think all can be so handled. Treatment is not so simple as that, but all patients except those classed with the interlobular and the seropurulent types can be treated primarily in this manner, and, in so doing, 2 very important advances are made:

- (1) The patient has improved generally.
- (2) The thoracic viscera, heart and lungs

especially, will have, to a great extent, assumed a more normal position, the abscess cavity has become walled-off, and the respiratory functions have become accustomed to the visceral positions (that is, the mediastinum is temporarily fixed).

One can, almost with impunity, at the end of a few days of closed drainage, open into the abscess cavity without danger of "mediastinal flutter".

CASE REPORTS

Case No. 1. A white woman, 56 years old, was admitted July 4, 1931, suffering from pneumonia of 6 days' duration. On July 30, aspiration of the left side revealed pus. Next day a No. 18 F. tube was placed, through trocar and canula, in the eighth interspace posterior-axillary line, under local anesthesia. Drainage was not satisfactory at the time of operation. However, aspiration every 2 hr. was very successful for 2 days, when I could only obtain air through the tube, and fluid could easily be put into the empyema cavity through the tube, but only a small amount would return by aspiration. Diagnosis of a bronchial fistula was entertained, and rib resection decided upon; 2 in. of the eighth rib were removed the following day, and 3 connecting pockets were discovered; bronchial fistula could not be definitely found; 2 tubes 5/16 in. and 1 piece iodoform gauze (for cavity too small to place tube) were placed for drainage. The patient made a rapid and uneventful recovery. Positive diagnosis of bronchial fistula was established, in that the patient "tasted" the iodoform, and when Dakin's solution was used for irrigation she "tasted" it, and, it caused a coughing paroxysm.

Open operations. Rib resection and intercostal incision with introduction of drainage tubes should be considered together. It matters little which method is used so long as a sufficient orifice can be obtained to: (1) properly explore, with the index finger, the abscess cavity; and, (2) introduce 2 pieces of 1/4 in. tubing without constriction by the ribs. Intercostal incision seldom answers these postulates, so rib resection will usually be required where canula-trocar-tube drainage is insufficient.

Reverting to the different pathologic reactions produced by different organisms:

(1) Pneumococcus, colon bacillus, and staphylococcus infections, as a rule, are best treated by the closed canula-trocar-tube method for 1 week, and then rib resection resorted to. The latter, however, is not always necessary.

(2) Streptococcus infections, should, without exception (other than interlobular), be treated by the closed method. Most of these cases can be treated successfully by this method.

Either of these groups may require preliminary syringe and needle aspirations.

Case No. 2. A colored man, aged 51, was admitted to the Medical Ward, Nov. 18, 1928, with bronchial pneumonia of approximately 3 days' duration. On the day after admission, greenish-yellow pus aspirated from the right thorax showed a pure culture of non-hemolytic streptococcus. Operation advised was at first refused but as he became more toxic and weaker, consent was given. Operation was performed on the 31st day after admission and consisted in establishing closed drainage under local anesthesia. He then began to improve. A point of interest in this case was that on the third postoperative day, while aspirating 100 c.c. fluid, the pus suddenly became pinkish (blood tinged) and the patient had a moderate dyspnea with anxious facies and ominous cough. Immediately, 60 c.c. normal saline was injected through the tube and patient's symptoms cleared up in 2 minutes. He was then put on water-sealed, continuous, closed drainage, made an uninterrupted convalescence and was discharged, with healed sinus, 39 days after operation.

All cases of streptococcus infections, however, do not run true to form. When closed tube drainage is not sufficient to eventuate in success, then rib resection should be resorted to.

Case No. 3. A white man, aged 35, was admitted to hospital with diagnosis of empyema. He had been sick with pneumonia for 5 weeks; very toxic and emaciated; temperature 101° F.; respirations 26; and pulse 108. The following day, a closed thoracotomy under local anesthesia; temperature immediately subsided;

he gained weight and strength rapidly; out of bed on the fifth day. Drainage was not satisfactory at times, though the tube and radiographs showed a massive area of density; so, on the ninth day, resection of 2 in. of the seventh rib was done, and 2 ($\frac{1}{4}$ in.) rubber tubes were inserted. The limits of the abscess cavity could not be reached by the exploring finger. There was no reaction to this procedure and the patient continued to improve in strength and, especially, in weight. Irrigations, with Dakin's solution, were continued until the seventieth day since admission (the 48th day after operation) and the cavity remained, so that an intrapleural thoracotomy, with resection of 4 in. of the eighth rib and 1 in. from each end of the previously resected seventh rib, in order that visual and manual inspection of the cavity could be accomplished, was performed. The cavity was found to measure approximately 8 x 10 in. and the visceral pleura was very thick ($\frac{1}{4}$ to $\frac{1}{2}$ in.). Decortication of portions of this thickened pleura was done and criss-cross incisions were made in the remaining visceral pleura. This operation was done under rectal anesthesia (avertin) supplemented by novocain infiltration. He was discharged to the outpatient department for dressings 3 weeks later and went on to a complete recovery.

Tuberculous empyema should not be treated by any of the above methods, unless mixed infection has occurred. The best procedure for tuberculous empyema is repeated syringe-and-needle aspirations, with irrigation of the cavity through the needle. Replacement of the withdrawn fluid, with air filtered through cotton, is usually an advisable adjunct. Radical surgical treatment of tuberculous empyema does not fall within the scope of this paper, but open operation, even though mixed infection be present, should not be done except as a last resort, because a persistent sinus or fistula almost invariably follows, and these are notoriously difficult to cure. The radical treatment consists of one or more of the following: extrapleural thoracoplasty, followed by syringe-and-needle aspirations and irrigations; phrenic nerve operations; closed water-seal tube drainage; intrapleural thoracotomy; in-

trapeurial thoracoplasty. Don't forget that, regardless of the method employed, diet, fresh air, sunshine and rest constitute, in the final analysis, the time-proved cure for tuberculosis.

During the past 3 years, using the above sequence of treatment for empyema, we have not had a postoperative death. We did, however, introduce a tube under local anesthesia through a trocar and canula, in a practically moribund baby, who died 9 days later. We do not feel that this should be considered a postoperative death for we operated only because it held the child's only possible chance to live; a child moribund on admission, with a positive blood culture, and bilateral pneumonia, and he was carried along for 8 days before dying from pneumonia and septicemia.

To summarize the treatment as used by us, we may graphically represent it as follows:

Group I. Patients with empyema, showing the usual toxemia and persistence of fever, but without any particular cardiac or respiratory embarrassment.

Procedures: (1) Canula-trocar-tube closed drainage; (2) rib resection when above fails.

Group II. Patients showing cardiac and respiratory embarrassment because of seropus.

Procedure: Frequent aspirations with syringe and needle until the fluid becomes frank pus. This case then belongs to the next group.

Group III. Patients showing cardiac and respiratory embarrassment because of frank pus.

Procedures: (1) Canula-trocar-tube closed drainage; (2) rib resection after above fails.

Group IV. Interlobar encapsulations of pus.

Procedure: Intrapleural thoracotomy with rib resection, and (a) immediate opening of abscess cavity when visceral is adherent to parietal pleura. (b) Walling-off of free pleural cavity with iodoform gauze, closure of skin over the gauze, and secondary operation for removal of gauze and opening of abscess 3-5 days later.

Group V. Tuberculous empyema, without mixed infection.

Procedure: Syringe-and-needle aspirations, followed by irrigation through the needle and injection of an amount of filtered air

equal to the amount of fluid removed. Extra-pleural thoracoplasty may be required occasionally (when the lung is fibrous and atelectatic).

Group VI. Tuberculous empyema with mixed infection.

Procedure: Syringe-and-needle aspirations and irrigations. If not successful, an extra-pleural thoracotomy with continuance of aspirations. To this may be added avulsion of the homolateral phrenic nerve. Only after above fails is one justified in using canula-trocar-tube closed drainage; and, as the last resort, a rib resection can be done.

Regarding anesthesia, we prefer local: infiltration for aspirations and for canula-and-trocar; paravertebral or local infiltration for rib resection. When local anesthesia fails, nitrous oxide is indicated. We favor rectal, avertin anesthesia plus local infiltration for patients requiring rib resection, whose general condition is good, and for extensive resection of ribs such as is done in thoracoplastic operations.

All patients, except the tuberculous, are supplied with blow-bottles (at least 1 gal. capacity) and their frequent use is insisted upon. These are usually supplied to those having closed drainage, at the end of 1 week; and on the day after, in rib resection cases.

NEWER ANESTHESIA

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When selecting a topic for discussion at this meeting of the Summit Medical Society, it occurred to me that the modern agents used in producing anesthesia and analgesia might be acceptable. Since November 1928, in the Surgical Department of the Orange Memorial Hospital, we have been greatly interested in this question and during that time have had some interesting experiences. It is only by actual experience that a correct estimate of the usefulness of any anesthetic may be determined, or an honest effort made to evaluate the claims advanced by enthusiastic advocates

of any given method. Selection of an anesthetic, and its proper administration, are matters of importance second only to the technical performance of the surgical procedure.

The rôle of the anesthetist has become one of considerable importance; for, upon his skill, tact and versatility, depends the successful induction and maintenance of the anesthesia. His department should be under the direct supervision of a Chief, who is a member of the Attending Staff, and whose whole time is directed to this work. Surgeons are today showing greater appreciation of the anesthetist's responsibility. His judgment should aid in selection of the anesthetic, and its administration should be left entirely to him; consequently, he should be equipped for, and practiced in, all methods of technical procedure. A few years ago, it was the custom to entrust administration of the anesthetic to the least experienced member of the hospital staff. Happily, this is no longer the rule. Many specially trained nurses have become expert anesthetists because they possessed the desirable attributes; and one needs only to recall the Sisters at the Mayo Clinics, or the nurses at Crile's Clinic, to realize their proficiency.

For a great many years, inhalation anesthesia by use of ether, has been the standard and accepted procedure for the majority of operations. Combinations of nitrous-oxide, oxygen and ether, given with the aid of such cleverly designed apparatus as recommended by Bennett and Gwathmey, effect a definite control and ease of administration, with a greater element of safety. The open drop method is safe and widely employed. The great advantage in using ether rests upon its comparative safety under varying conditions, and it remains the anesthetic of choice by most operators. Chloroform, still a potent agent, has some advocates, especially in the field of obstetrics, but is now rarely used in general surgery, because of its greater danger and because very few of the younger men have had experience with its administration.

Ethylene gas, extensively used in many clinics, is safe and efficient, but possesses the disadvantage of being explosive in an atmosphere of insufficient moisture. When it is used, the

operating room should be properly grounded by brass strips in the floor, and apparatus should be available for testing the humidity. Many hospitals in the Middle West use it extensively. We have had very little experience with it, but have been impressed by its advantages under proper control. It may be used with safety in the presence of acute or chronic pulmonary complications.

Inhalation anesthesia, as usually employed in the nitrous-oxide-ether sequence, has some definite disadvantages. The degree of nausea and vomiting induced varies, but some degree may be expected. The frequency of respiratory complications, especially during the winter season or during an epidemic of influenza, is notable. Individuals suffering from diabetes, nephritis, tuberculosis, intestinal obstruction, senile debility and many other ailments, take a general anesthetic poorly.

Of the newer methods, spinal anesthesia has received the greatest attention and been accorded an extensive employment. As far back as 1894, Corning experimented with a solution of cocaine injected into the spinal canal. Matas, in 1900, also employing cocaine, operated on a patient thus anesthetized. Babcock, in 1904, began using stovain, which he has continued to use extensively ever since; he being one of the pioneer enthusiasts for spinal anesthesia, who possesses a broad knowledge of the subject, and who employs it with skill and judgment.

To Gaston Labat, more than any other individual, is the profession indebted for a clear elucidation of the physiologic principles involved in spinal anesthesia, and for perfecting the technic of its induction. During the past 10 years, use of the procedure has steadily increased, and for the past 3 years there has been for it a great wave of popularity all over the country.

One of the seemingly necessary results of popular adoption, of any new method, is abuse of its application, and spinal anesthesia has been extensively employed by men who were insufficiently familiar with its action, and unskilled in the technic of its administration. As a consequence, certain failures have occurred; due more often to errors of technic than to the method itself. When properly em-

ployed, it is safe. Before employing the method, we visited clinics where it was being used and endeavored to learn the proper technique from such men as Sise, Pitkin, Deaver and Koster. It can be used in all conditions where a general anesthetic might be employed and on many occasions where an inhalation method might be contraindicated. Very few deaths have resulted from its use, but because of its being, comparatively, an innovation, those fatalities have been carefully recorded but unduly emphasized. Labat, with an experience of several thousand administrations since 1916, has not had a death. Stout reported a series of more than 1000 cases, with no deaths; Deaver employed it for about 5000 patients, with but 1 death, and that due to an accident. Case, reported 1000 with 1 death; Koster, 6000 with 9 deaths; Rygh and Bessesea, reviewing 250,000 administrations recorded in literature, assert that the average mortality is 1 in 3345; Sise, of Boston, in 1929, reported 1 in 950. In the October issue of the American Journal of Surgery, Crile reported a large experience without a single death. In the Orange Memorial Hospital, there were 603 spinal anesthetics in 1929; 590 in 1930; 377 up to August 1931; a total of 1570, with 3 deaths. Concerning those 3 deaths: one patient was a very obese Italian woman with a large appendiceal abscess, who died suddenly after evacuation of the abscess; the second death was due to a spinal anesthesia following upon the administration of avertin; 40 minutes later, after removal of the gall-bladder and appendix, the patient ceased breathing, pulse continued weak and rapid; artificial respiration was maintained for $\frac{1}{2}$ hour and the patient finally died. I believe the avertin to have been responsible for this death, but there was an error in judgment, on our part, in using the combinations of these potent agents with this patient; although we had employed the preliminary induction by avertin with 15 patients to whom spinal anesthesia was successfully administered. The death which occurred in 1928 was of a patient with a fractured coccyx, with an increasing coccydynia, who developed a pleurisy with effusion but which was presum-

ably under control at the time set for operation. The patient succumbed within 5 minutes after administration of the spinal anesthetic. Again an error of judgment; for a regional anesthesia would have been safe. There have been no deaths in the last 500 spinal anesthetics in our hospital which could have been in any manner attributed to the anesthetics which were administered by a number of different men.

In our judgment, spinal anesthesia has great merit and has won a high place among methods employed during the performance of surgical procedures below the diaphragm. We cannot endorse the practice of Koster, who has the courage to use it in work above the diaphragm. It offers a definite advantage to the patient in freedom from postoperative nausea and vomiting, lessened incidence of pulmonary complications, ability to take food early, lessened postoperative pain and flatulency, and rapid return of complete consciousness. In diabetics, who are poor subjects for inhalation anesthesia, spinal is ideal for amputations or any surgery below the diaphragm. Reduction of fractures of the hip and lower extremities is made easy, and one has the co-operation of a conscious patient, free from pain.

In all abdominal work, the ease and facility of manipulations, due to contraction of the intestines and relaxation of the abdominal wall, together with quiet breathing, afford a contrast to the difficulties encountered under general anesthetic. Removal of a gall-bladder and exploration of the ducts, becomes a comparatively easy procedure under spinal. Fewer abdominal packs are required; hence, lessened postoperative adhesions.

Certain precautions are helpful. Previous employment of ephedrine hypodermically, combats a fall in blood pressure. Trendelenburg posture immediately after injection forestalls cerebral anemia. If shock occurs, use ephedrine, adrenalin and saline-glucose solution intravenously. The nausea, which occurs shortly after administration, is relieved by deep breathing. The most common aftermath is headache on sitting up; usually relieved by posture. Being due to leakage of spinal fluid from site of puncture, it can best be prevented

by using a small needle and making a proper puncture. A preliminary hypnotic is helpful. It is our custom to give 3 gr. of luminal the night preceding operation, to insure a good night's sleep; 2 hours before operation give hypodermically 1/6 gr. morphia plain, or combined with 1/200 gr. scopolamine, and this may be repeated in 1 hour for patients who are nervous and apprehensive. Many go through the entire operation without knowledge of its performance and ask at the completion, when it is to be started. It is essential to have coordinated team-work between operator, anesthetist and nurses, and no unnecessary noises should be allowed—especially no discussion about the patient, for some are too receptive and emotional. Some failures are due to a lack of appreciation of the psychic effect upon a patient. Up to July 1930, we had used spinal anesthesia for more than 200 patients on our own service. Most of these were induced by the method of Pitkin, using spinocain, and were satisfactory in 95% of the cases. During the past year, we have employed neocain, after the method of Labat, dissolving the drug in spinal fluid, and found it nearly always effective.

There are a number of people who object to any knowledge of the operating room experience and who are much affected by vision of the nurses and doctors in gowns and masks, and by the sound of instruments and of conversation; who may carry away unhappy impressions and exaggerate the memories acquired. Some form of anesthesia other than spinal is better for them. However, it should be the routine to anticipate these conditions by covering the eyes and placing wool in the ears of all patients receiving spinal anesthesia, to inhibit these factors.

During the past year we have been using spinal anesthesia less frequently, because of increasing familiarity with avertin. Tribromethylalcohol, known commercially as avertin, produces anesthesia in a very satisfactory manner. It may be used alone, for simple procedures, or combined with gas-oxygen for any general surgery. Duration of the unconscious state is sufficiently long and there are

no unpleasant complications. The element of safety rates high in comparison with other anesthetics. Deaths have occurred from its use, but some of those have no doubt been due to improper administration and over-dosage. During 1930, we employed avertin for 83 patients. In 1931, it has been used, up to August 31, for 141; alone, 31; with spinal fluid, 15; with gas-oxygen, 21; gas-oxygen and ether, 19. All of these patients were under the direction of Dr. Benedict, our chief anesthetist. Our satisfaction with its employment has increased with experience. The dosage ranges from 75 to 120 mg. per kilogram of body weight; the general rule has been to allow 100 mg. Older persons require relatively smaller doses than young, robust subjects. It is absorbed very rapidly by the intestinal mucosa and no local reaction has been observed. Sleep, without any excitation, is usually induced in 5-10 minutes. The heart is evidently not affected by the average dose, as the pulse rate remains normal and there is no appreciable change in blood pressure. The patient retains no impressions of the operative experience and usually sleeps for several hours following return to his room. A semiconscious state may last 12-18 hours. It is the greatest boon to surgery in recent years, especially as applied to nervous and apprehensive adults and to children, who are not aware that they are being put to sleep.

The contraindications for its use are: disease of the liver or kidneys; pulmonary tuberculosis; marked anemia. For thyroid work and in cranial surgery, it is ideal. The post-operative condition is void of nausea, vomiting and other distressing symptoms. The element of safety is high, but fatalities have occurred with its use and we had 1 death in our series. In fatal cases, paralysis of respiration occurs. In our fatality, artificial respiration was carried on for 30 minutes before death occurred. One other fatality occurred in our hospital on October 23; a patient upon whom a frontal sinus operation, lasting nearly 2 hours, was just being completed.

The advantages of avertin are the simplicity of administration, promptness with which

complete unconsciousness is induced, and convenience of administration in the patient's room. To some patients, the journey to the operating room on a stretcher, through corridors and on elevators; the visual impressions of the operating room, with nurses and doctors in gowns and masks; are productive of some psychic shock, the degree of which varies in accordance with the nervous mechanism of the individual.

Various drugs belonging to the barbituric acid group are known to possess definite potency in the production of analgesia. Oral administration of large doses of luminal has been advocated and employed. We have had some experience with intravenous administration of sodium amytal and have found it very satisfactory. From November 30, 1929, to October 9, 1931, it has been used in 55 cases of various conditions. In 8 instances amytal alone was employed; for such procedures as dilation and curettage, implantation of radium or making pelvic examination for diagnosis. It was combined with spinal anesthesia 38 times; 3 times gas-oxygen was added to this combination; 9 times it was combined with gas and ether. The administration and control of these patients were under the direction of Dr. McLellan, and a preliminary report was published in the *American Journal of Surgery*, July 1930.

Sodium amytal produces a quiet, deep sleep in equally as pleasant a manner as that produced by rectal administration of avertin. It has the advantage of being more completely under control and enabling one to use the amount required to produce sound sleep in the individual patient; an unemotional, calm patient requiring relatively less of the drug than one of an excitable, unstable type, such as is represented by patients with thyroid affections. We use 1 gm. dissolved in 10 c.c. distilled water, and inject it into the vein at the rate of 1 c.c. per minute, not more rapidly; in the series, an average of 0.8 gm. was used and in only 1 or 2 instances, more than 1 gm. (our maximum dose being 1.2 gm.). As with other anesthetics, it has been found that a hypnotic the previous night is helpful. Luminal or veronal being thus employed, one can

detect any susceptibility to such drugs. A preliminary hypodermic of morphine may be given to the highly nervous patient. The use of sodium amytal makes it possible to maintain complete analgesia with smaller amounts of spinal novocain or gas-oxygen inhalation. The blood pressure is lowered by its use, but this may be prevented by preliminary use of ephedrine. Respirations may be slower and, if more shallow, can be restored to normal by the inhalation of CO₂ and oxygen. Four of the patients were excited on awakening, but were quickly quieted by a hypodermic of morphine; 6 required catheterization; 9 had nausea and vomiting. All of the patients were impressed with the ease and comfort of the anesthesia. There were no complications in any of the series.

It is difficult to estimate the efficacy of an agent upon such a limited experience, but we believe that sodium amytal is of definite value in lessening the psychic shock to unstable, emotional individuals requiring surgical operations. Our chief reason for using avertin more frequently was its greater ease of administration.

Regional anesthesia possesses a wide range of usefulness and, when skilfully employed, may be used in operations upon any part of the body. Thyroidectomies, cranial operations, tonsillectomies, explorations of the chest, repair of hernia, appendectomies, removal of superficial tumors, amputations of toes or fingers and procedures of technical difficulty requiring time, such as resection of the jaw; may be performed by proper nerve blocking. It is essential that one employing regional anesthesia be thoroughly familiar with the anatomic landmarks and nerve distributions, as well as possessing proper skill in its administration.

The whole question of anesthesia resolves itself into one of tact and judgment in employing the method which will give the patient the greatest degree of comfort and maximum assurance of safety. It is, therefore, the concern of every surgeon to familiarize himself with the proved merits of the various agents and to employ them with deserved consideration.

OFFICE TREATMENT OF DIABETES MELLITUS*

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The method described in this paper is that practiced generally by the physicians on the "Metabolic Service" at the City Hospital of Newark with very gratifying results.

Before going into the *modus operandi* of the office treatment of this disease, however, our first consideration should be—just what type of diabetic patient can be successfully treated in the office? For most practical purposes, we shall classify them as follows:

(1) The intelligent and coöperative patient (or relative of the patient); because success depends, to a great extent, on the patient's willingness to learn and to follow instructions implicitly. The nature of the disease and the details necessary for its successful treatment must be carefully explained by the physician, especially if insulin is to be given.

(2) Those whose diabetes is not complicated by acidosis.

(3) Diabetics without any surgical complication.

(4) Diabetics who are not too old nor too weak to visit the office twice a day if necessary.

(5) Diabetic children who have no acidosis, and whose parents are intelligent and can afford to employ a nurse trained in the care of diabetics.

(6) Diabetic patients coming to the office for insulin treatment should be able to reach their homes within half an hour after leaving the doctor's office.

Before commencing any treatment for diabetes, it is essential that a correct diagnosis be made since some patients showing either a polyuria or glycosuria may be wrongly diagnosed as having diabetes mellitus. Therefore, besides writing a complete history, making a complete physical examination, the patient should return to the office the following morning, on a fasting stomach, for a blood chem-

istry determination; and sometimes it is necessary to do a sugar-tolerance test.

As nephritis and hypertension are not uncommon complications in diabetes, I prefer to have also a determination of the urea-nitrogen, the creatinine and the chlorides of the blood, in addition to the usual blood-sugar measurement.

After all this the patient is given a diet for the day, the amount of proteins, fats and carbohydrates depending on his general condition; details of which will be cited later. He is then instructed to collect a specimen of urine 2 hours after each meal and upon arising the following morning; to put each specimen in a small bottle and to label them B.B. (before breakfast); A.B. (after breakfast); A.L. (after lunch); and A.D. (after dinner). He should report at the office the following morning with his 4 specimens. By that time, the physician should have the blood chemistry report, as the blood-sugar is really the best index of the disease, and the 4 specimens of urine can at once be tested for sugar, acetone, and diacetic acid.

From long experience in hospital and office, we find that more valuable information is obtained from those 4 specimens, taken at specified times of the day, than from an estimation of the total 24 hour out-put, for we are able to tell at which time of the day, and after which meal or meals, the patient excretes the greatest quantity of sugar.

Having all this laboratory data on hand, the question arises—how are we to determine the course of treatment? That is, who can be treated solely with a restricted diet, and who requires a restricted diet plus insulin? Joslin states that "Good health, not tolerable health, is the right of the diabetic today and this is the real justification for the use of insulin". He continues with: "Any diabetic who cannot keep the urine free from sugar, and the sugar in the blood normal, and himself in good health with the diet allowed, should take insulin. It is possible to treat the individual by under-nutrition and to bring him back to a fair condition of health by methods which were employed for nearly a quarter of a century, but such treatment never lasts." In our practice, only diabetics who are well nour-

* (Read at a meeting of the New Jersey Women's State Medical Society, November 14, 1931.)

ished, who have never been on a restricted diet, and whose blood-sugar is not very high, are started on a restricted diet alone. We give a restricted diet plus insulin, to: (1) A diabetic who has any complications or any infection. (2) A diabetic who has been on a restricted diet for a long time and cannot become sugar-free. (3) Any diabetic who is emaciated. (4) Any diabetic whose diet cannot be too low, because of his activities.

There are various systems of dietetic treatment of diabetes, but always under-nutrition has to be utilized at one stage or another. All diets can be adjusted in such manner that the ketone-forming bodies shall be so related to the anti-ketone bodies that acidosis will not result. Acidosis will not result if the protein in the diet is held at 1 gm. per kg. of body weight and the grams of carbohydrates at about 1.5 to 2 gm. of fat, with the calories at about 30 per kg. of body weight. The main object in the treatment of diabetes is to prescribe a diet that will keep the urine sugar-free, the blood-sugar normal, and at the same time will not cause over-nutrition or extreme under-nutrition.

The daily caloric requirement of a diabetic depends upon the sex, age, height and weight, and upon the degree of activity, of the individual. For diabetics who are not in bed and whose only exercise is a limited amount of walking, about 30% more calories are needed than the basal metabolic requirement. For those doing active work, 40 to 50% more than the basal metabolic requirement are needed. Roughly speaking, about 25 to 30% calories per kg. of body weight should be given, but one should always remember that no 2 diabetics are alike and that each is a law unto himself.

The patient's diet for the first day of treatment consists of a test-diet of about 900 calories, which is about $\frac{1}{2}$ the calories required by a 60 kg. patient. I start with about 40 gm. of protein; not less than 100 gm. carbohydrates, and the rest fat. Too little carbohydrates is very dangerous, since it is not only conducive to acidosis but may also reduce the patient's tolerance, if prolonged.

After the first day of treatment, I have

the patient report to the office with the 4 specimens of urine previously mentioned. The specimens are tested and the results shown and explained to the patient. (Benedict's qualitative test for sugar is done, because it is very simple and very delicate, and quantities of sugar as low as .08% can be detected.) Reduction is accomplished by a change of color of the mixture from a clear blue to a green, yellowish-green, yellow or brick-red. A faint pea-green change in color represents .08 to 1% or, as the patient is taught to read it +; yellowish-green, .05% or ++; yellow, 1% or over or +++; orange or brick-red, cannot estimate the amount, but we refer to it as ++++. A flocculent precipitate, which does not settle rapidly and does not change the color of the solution, is due to other substances than sugar.

If the specimens become sugar-free after a few days on the test diet, the diet is increased. The carbohydrate remains the same but the protein and fat are gradually increased until the patient receives 1 to 1.5 gm. of protein per kg. of body weight; that again depending upon the activity of the patient. The fat should be raised sufficiently to give the required calories. If the urine is then still sugar-free and the blood-sugar favorable, the carbohydrates may be increased to a trifle below the patient's tolerance. On the other hand, if the patient's carbohydrate tolerance is below 100 gm., he should be treated with insulin plus the restricted diet.

Due to possible individual idiosyncrasies, the patient is started on 2 small doses of insulin a day, about 10 units 20 minutes B.B.; and 10 units 20 minutes B.S. If the urine does not show any improvement in a day or 2, the insulin is increased about 5 units before those meals, the diet remaining the same. Until the urine shows some improvement, the patient should come to the office twice a day for insulin.

As a rule, the specimen before breakfast and the one after supper, are the first to improve; the one after breakfast is always the last. For this reason, a larger amount of carbohydrate is given with the evening meal and, as a rule, a smaller dose of insulin.

As the specimens begin to show signs of improvement, the diet is increased, the carbohydrate being increased only for those meals which do not show any sugar. The protein should be increased to 1 gm. per kg. of body weight unless the patient is quite old or has some kidney impairment. We must bear in mind that one food which the diabetic cannot do without is protein. The carbohydrate is increased to the point of tolerance and the fat increased to make up the caloric requirement. The caloric requirement varies with each individual and in each individual depending on his or her activity at that particular time.

After the diet has reached the caloric requirement and the specimens are all sugar-free, we start reducing the insulin 3 to 5 units B.B. and the same B.S. As the evening specimen becomes sugar-free earliest, it is the evening dose which is first reduced. By gradual reduction, we are often able to eliminate the evening dose long before that of the morning. Sometimes it is difficult to obtain a sugar-free specimen after breakfast even though the after lunch specimen is sugar-free, or even though the patient may have an insulin reaction during the course of the morning. In some cases, increasing the time interval between the administration of insulin and breakfast from 20 minutes to 1 hour, proves helpful in clearing this specimen. Sometimes a little physical exercise right after breakfast will help. Other times dividing the carbohydrates allotted for breakfast, that is, eating part of the carbohydrates with breakfast and the rest 2 hours after breakfast, is beneficial. This not only renders the urine sugar-free but, in most cases, will prevent an insulin reaction before lunch.

In planning a diet, I never leave it to the patient to select his own articles of food. I find it not only safer and easier for the patient to be given a prescribed diet that has been calculated by me, but most essential, since I combine the fast and slow carbohydrate for each meal. Thus, in a patient who is started on 100 gm. carbohydrate, 40 gm. protein, and 40 gm. fat, I generally give the following:

BREAKFAST		
10% Fruit	100 gm.	
Milk	6 oz.	
Bread	30 gm.	
Butter	5 gm.	

LUNCH		
1 Egg		
5% Vegetable	150 gm.	
Milk	4 oz.	
Bread	40 gm.	
Butter	5 gm.	

DINNER		
Plain fat-free broth		
Meat	50 gm.	
5% Vegetable	150 gm.	
10% Fruit	100 gm.	
Bread	40 gm.	
Butter	10 gm.	

Total amount is: protein 40 gm., fat 40 gm., carbohydrate 100 gm.

The patient brings this list to the office daily for the necessary changes.

In planning a diabetic diet, one should bear in mind that the successful diet is one which is palatable, filling and varied.

As the above diet is increased, breadstuffs and potatoes should be given, since they are appreciated by all patients. A physician should not hesitate to include them in proper amounts. Patients should have the choice of the 5% and 10% vegetables and the 10% fruits. When the patient's tolerance is increased do not hesitate to give cereal for breakfast. Oatmeal (20 gm.) makes a nice bowl and most patients are grateful for it. A proper quantity of cheese, fish, and eggs should be on every menu.

When insulin is given, approximate measures are never prescribed. The patient must purchase either a Gram or Ounce Scale. The regular house-hold spring scale should not be used since it is not sensitive to very small amounts, such as $\frac{1}{2}$ oz.

When the patient's urine specimens begin to show signs of improvement, the symptoms of insulin reaction must be explained to him. In case of a reaction he is to take the juice of an orange and a teaspoonful of sugar, or a few lumps of sugar or a piece of chocolate. (Every insulin patient should always carry some lumps of sugar or chocolate.) At this time, I start to teach the patient how to take the insulin and test his own urine. If he is unable to do it, some member of the fam-

ily is taught. He is instructed how to sterilize the needle and syringe and warned against the danger of infection. When I am fully satisfied that the patient is capable of taking the insulin himself, I have him report to the office only in the morning, and let him take the evening dose at home. When all the specimens have become sugar-free, and the diet is satisfactory, and the insulin dosage established, the patient is asked to report in 1 week. He is also told to keep a chart of his daily specimens and the report is to be brought to me at the end of the week. If the patient should get any reactions during that week, he is advised to reduce the insulin. If he should show any sugar, he is to return to the office before the week is up, because the diet may need some readjustment. It is also possible that the patient may be developing some infection.

The patient should return to the office about once a week, if all is well; once every 2 weeks and then once a month for any change in diet and an insulin and blood-sugar determination. The greater the coöperation between the physician and the patient, the better the results.

In conclusion, I wish to emphasize—one must not forget that every diabetic is a law unto himself and success of the treatment depends on the ability of the physician to educate the patient, and to plan a diet for the patient which will be compatible with the patient's mode of life.

ROLE OF THE OVARIAN AND THE ANTERIOR PITUITARY HORMONES IN THE SEXUAL AND REPRODUCTIVE CYCLES

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The object of this paper is to review briefly the evolutionary phases of a comparatively new branch of medicine, one that is, however, already receiving practical application to obstetric and gynecologic conditions, for both diagnostic and therapeutic purposes, and which

may in the near future help to solve some problems now apparently insurmountable.

Though the first authentic account of the ovary and Graafian follicles appeared in the classic work of De Graaf, in 1672, the history of female sex physiology and hormonology is quite recent; in fact, it is yet in a process of formation. Berthold, in 1849, demonstrated that transplanting testicles into castrated cocks would prevent the usual sequels of castration. In 1896, Brown-Séquard injected into himself extracts made from animal testicles and experienced symptoms of rejuvenation. Knauer, in 1896, showed that ovarian transplants in spayed animals prevented the uterine atrophy which usually follows castration, proving that the female sex gland must produce an internal secretion which, acting through the blood, is able to preserve integrity of the genital apparatus. In 1900, Halban observed that subcutaneous, ovarian grafts upon immature, castrated, female guinea-pigs, produced normal puberty; confirming the belief that the ovaries produce an internal secretion which presides over development of the genital organs. In 1910, Steinach, by transplanting ovaries into castrated, male, guinea-pigs, induced hyperplasia and other changes in their secondary sex characters (breasts, nipples, hair), similar to those appearing in the mature female.

In 1912, Adler, injecting parenterally into infantile guinea-pigs an aqueous ovarian extract, noted estrual changes in their genital apparatus and, particularly, a marked hypertrophy of the ovarian follicles. Aschner obtained analogous changes by injecting extracts of placenta. Zondek, however, showed that similar modifications of the genital organs could be produced by parenteral injection of substances like milk or histamine.

Stockard and Papanicolaou, experimenting on guinea-pigs, in 1917; Long and Evans, on rats, in 1922; and Allen, on mice, in the same year; discovered that by injecting into a castrated animal an extract made from follicular fluid, the morphologic picture of its vaginal discharge was promptly changed from that characteristic of the state of rest to that typical for the beginning of estrus. Thus, a spe-

cific biologic test for this estrus-producing hormone secreted by the ovary, was found. But Allen and Doisy went a step further in determining a standard unit, that is, the smallest quantity of this specific ovarian hormone capable of producing in the castrated mouse the characteristic estrual changes of the vaginal epithelium. The Allen-Doisy test, therefore, is of far-reaching importance, because it enables us not only to ascertain qualitatively, but also to determine quantitatively, the amount of this hormone in any given ovarian extract or ovarian graft.

Sexual cycle corresponds to the periodic genital changes that take place in absence of pregnancy. As we shall see, in rodents any estrus without impregnation is a sexual cycle. In humans and primates, the time elapsing between the beginning of one menstruation and onset of the next, is a "sexual cycle". *Reproductive cycle* begins as a sexual cycle and, when impregnation occurs, continues through gestation and parturition. If conception does not take place, the ovum degenerates and thus ends the sexual cycle.

Among rodents the sexual cycle is characterized by 4 periods:

(1) *Phase of rest, or "diestrus"*, in which the vagina presents a layer of basal cylindric cells covered by a layer of polygonal elements, and above this another layer of cylindric, secreting cells. The ovaries show corpora lutea but no ripe follicles. The vaginal secretion is composed of strings of mucus, polymorphonuclear leukocytes predominating, and a moderate number of large epithelial cells with nuclei.

(2) *Phase of proliferation, or "proestrus"*, in which the vagina presents 8-10 layers of polygonal cells above the basal layer. In the superficial mucous layer, the polygonal cells are keratinized—not secreting—and form exclusively the vaginal secretion; hence the absence of mucus and leukocytes; the hypertrophied uterus and ovaries showing follicles full of "liquor folliculi".

(3) *Phase of maturation, or "estrus"*, in which the ovaries contain mature follicles with theca composed of 2 or 3 layers. Uterus is enlarged, its cavity ample, with glandular pro-

liferation, leukocytes absent. Vagina is composed of 10-12 layers of polygonal cells, the superficial being keratinized. The vaginal secretion is formed of fragments and scales of these cornified elements.

(4) *Phase of involution, or "metestrus"*. Ovaries show typical corpora lutea; uterus is small, with low epithelium and small glands, but numerous leukocytes. Vagina presents leukocytic infiltration of the polygonal cells, which fall off down to the basal layer. Vaginal secretion is composed of anucleated squamous epithelial cells and leukocytes.

An almost exact parallelism between the menstrual, or endometrial, cycle of humans, and the estrual cycle of the rodents, has been found. After a menstruation ceases, there is first a "rest stage", in which the glands are small and tubular, but soon there follows a proliferative stage, in which the epithelial layer becomes higher, the glands longer and tortuous; i. e., the mucosa becomes hypertrophied. The last week of a cycle is characterized by dilatation of the glands, and hypertrophy of the epithelium, which becomes columnar, like true secreting elements, while the stroma cells undergo a decidual transformation. This is called the "premenstrual stage" and is considered as a phase preparatory for implantation; corresponding to the "progestational stage" of lower animals (Corner).

If conception does not occur, the structure formed at the premenstrual stage breaks down, on the twenty-eighth day, and is eliminated by the menstrual flow. It will take about 5 days for the reintegration of the endometrium to its previous stage of rest.

From the above, it is evident that menstruation is the homologue of metestrus (Hartman).

In castrated animals the genital apparatus is in a state of diestrus, but, in them, we may produce a condition of estrus by means of an active ovarian hormone.

Female sex hormone, called also folliculin, or estrin, or, more recently, progynon, amniotin or theelin, is found not only in the liquor folliculi, but also in the corpus luteum, placenta, and, particularly, in urine of the pregnant woman. In 1925, Frank discovered its

presence in the blood of women, even when not pregnant. Folliculin has been isolated in crystalline form, independently by Allen and Doisy in this country, and Butenandt in Germany.

What is the biologic action of folliculin? If a certain amount of it be injected into a spayed mouse or rat, estrus appears within 48 hours and persists as long as such injections are continued; a macroscopic proof of which is evidenced by the enlargement of its uterus to about 4 times that of the control animals. As a standard of measurement, for a given extract, a mouse or rat unit has been adopted, which is defined as the smallest quantity of the extract which, injected into a mature spayed mouse or rat, 3 times, at 4 hour intervals, during the first day, will produce in them the phase of cornification and desquamation, at the end of 48 hours.

Anterior lobe pituitary hormone (A. H. H.). While folliculin produces sexual maturity in infantile animals, as manifested by estrual changes in the uterus and vagina, it has no action on the ovaries. On the other hand, the ovaries may be markedly modified by grafting small fragments of the anterior lobe of the hypophysis; and, animals thus grafted not only present the estrual modifications of the vagina and uterus but, at the same time, small, elevated, yellow formations in the ovaries (corpora lutea), become visible to the naked eye. Microscopically, one may see marked hyperemia, hypertrophied and hemorrhagic follicles and corpora lutea. These ovarian phenomena, or morphologic and functional reactions, were found to be due solely to action of the anterior lobe of the pituitary gland, and, therefore, are specific. They are classified into 3 groups:

Reaction 1: characterized by the occurrence of estrus, maturation of the follicles, ovulation and escape of ova into the tubes.

Reaction 2: characterized by the presence of "puncta hemorrhagica" in the enlarged follicles. This reaction, which can be obtained in the rodents, only when they are sexually mature, is of paramount importance, since it forms the basis of the biologic test for pregnancy.

Reaction 3: characterized by the formation of true corpora lutea and atretic corpora lutea.

Correlation between pre-hypophyseal and ovarian hormones. The injection of A. H. H. into castrated animals does not produce any changes; in contrast to what happens with folliculin. Furthermore, the latter is thermostabile, while the former is destroyed by boiling.

The A. H. H. called also "prolan" has been found to contain at least 3 active principles:

(1) A growth-promoting hormone (Evans and Long) which has not as yet been isolated.

(2) A metabolic hormone, or "praephyson" (Kiestner and Plaut-Liebeschutz), not as yet isolated.

(3) A gonadotrope or sex-activating hormone, or prolan, which contains 2 diversified principles: prolan A, or estrus-producing substance, which "motivates" the ovarian follicle to the production of estrin, which in turn induces the proliferative phase of endometrium; and prolan B, or luteinizing principle, which transforms the granulosa and theca cells into lutein cells; and these, through the action of another hormone—lutin or progesterin—change the proliferative stage of the endometrium to a secretory one (pre-menstrual or pre-gestational stage). Prolan B is doubly important, first because it is the basis of the Aschheim-Zondek test, and second, because it is being used therapeutically with favorable results.

In the light of the above mentioned findings, we must recognize that the anterior lobe of the hypophysis is a sort of motor, which not only starts ovulation, but also controls the output of the estrus-producing hormone, which through its growth-stimulating action on the uterus and mammary glands concurs to the complex function of reproduction. The anterior pituitary hormone has been compared to the small motor of an automobile self-starter, because it is capable of starting the motor of the engine.

In analogy to what Allen and Doisy have done with the ovarian hormone, Aschheim and Zondek elaborated not only a specific biologic test for the anterior pituitary hormone, but also a mouse unit (m. u.) for the accurate determination of its quantity in a given substance.

A mouse unit is the amount of a hormone which has the power, when divided into 6 portions, to produce the characteristic reaction in an infantile white mouse after 100 hours.

Aschheim and Zondek have found that between the first and eighth week of pregnancy, 1 liter of urine contains 300-600 m. u. of folliculin, but over 10 times as much of A. H. H., namely 5000-6000 m. u. In the last 3 months of pregnancy 1 liter of urine contains 2000-3000 units of A. H. H. as against 6000-10,000 units of ovarian hormone. The observation that the output peak of the A. H. H. occurs between the first and the second week after non-appearance of the expected menstruation, that is, after implantation of the fertilized ovum in the uterus, was logically interpreted by Aschheim and Zondek as indicative of pregnancy in its earliest stages. This biologic test is a simple and reliable one, having only about 2% of failures. It has been modified by different investigators, and the method generally used, that of Friedman, until the recent modification by Brouha, consisted of injecting 5 c.c. urine from a pregnant woman into the marginal vein of the ear of a female rabbit. Within 48 hours, the animal is sacrificed and the diagnosis of pregnancy can be made macroscopically by the typical findings in the ovaries.

This test has been found positive in 98% of normal pregnancies beginning with the first week, while early in the puerperium the reaction tends to become negative. Voza (1929) found it positive also in cases of extra-uterine pregnancy and hydatid mole. Addessi found the test positive in 6 out of 8 ectopic pregnancies; i. e., positive when the pregnancy was intact, negative when interrupted.

A. H. H. and tumors. This hormone has been found in the urine in 82.5% of women with carcinoma of the female genital organs, and in 75% of those having carcinoma of the uterine body and the ovaries, in particular. It is interesting to note that in extragenital

carcinoma of the female, it was found in 36%; while in the male in only 13%. The reaction for this hormone is strongly positive in cases of hydatid mole and chorio-epithelioma (Voza, 1930); and after removal of a chorio-epithelioma, if the reaction recurs, it is diagnostic of metastasis. A striking exception to the specificity of the Aschheim-Zondek test is given by sarcoma of the testis; as in 4 such cases it was positive in all.

Diagnosis of polyhormonal syndromes. Determination of the amount of ovarian hormone in the urine is being used as a basis for the diagnosis of several functional disorders, called polyhormonal syndromes:

(1) Polyhormonal amenorrhea, characterized by increased folliculinuria, cyst formation of the ovaries, absence of corpus luteum. Absence of A. H. H. rules out pregnancy.

(2) Polyhormonal metrorrhagia, or dysfunctional hemorrhage of the uterus, has the same characteristics as the preceding condition, plus hemorrhage. This ceases when the cysts are punctured or removed.

(3) Polyhormonal menopause: (a) Hyperfolliculinic, characterized by increase of folliculin in the urine, up to 200 m. u. per 1000 c.c. (10-20 times the amount eliminated in the pre-menstrual phase). The symptoms may be those of polyhormonal amenorrhea or metrorrhagia. (b) Hypofolliculinic or afolliculinic; i. e., small amount or absence of folliculin in the urine. Symptoms are: hot flushes, sweats, palpitation, air hunger and melancholia. (c) Pre-hypophyseal, characterized by absence of folliculin, but marked increase of A. H. H. in the urine (500-600 m. u. per liter). This condition follows surgical, as well as x-ray, castration, the only difference being that in the former the A. H. H. appears 10 days postoperative, while in the latter, despite the early amenorrhea, it appears at least after 1 year.

CLINICAL APPLICATIONS

The following tables are self-explanatory.

TABLE I—AMENORRHEA

TYPE	SYMPTOMS	THERAPY
Thyroid deficiency	Changes of metabolism	Thyroid extract
Folliculin	Polyhormonal syndromes	Puncture or removal of folliculin cysts, hormones

In regard to therapy, the combined hormone method seems to us the most rational—thus, prolan, 100-200 m. u. is given intramuscularly during the first week; followed by theelin or progynon, 100 m. u. orally b. i. d., in the second week; in the third week, the theelin is increased to 200-300 b. i. d., and in the fourth week to 300-400 m. u. Follutein (Squibb) may be used instead of prolan. This treatment is followed by a rest interval of 4 weeks, and then is resumed.

Chronic eczemas of menopause react favorably to the combined theelin and prolan treatment.

Prolan has been used also, with some success, in "under-weight" patients on account of its property of lowering the basal metabolism.

Other conditions, such as sexual frigidity, infantile uterus, kraurosis vulvae, pruritus, hyperemesis gravidarum, epilepsy, at the menstrual period, and vasomotor rhinitis in which the anterior pituitary hormone therapy has

TABLE II—METRORRHAGIA

TYPE	THERAPY
Ovarian deficiency	Ovarian extract
Hypertrophy of endometrium	Curettage
Polyhormonal { Follicle cysts	Puncture or removal of cysts
{ Hypofolliculinuria	Folliculin 500 m. u. orally b. i. d. or in severe cases 100-200 m. u. intravenously for 10 ds. consecutively
Menopause { Stage a.	Folliculin contraindicated
{ Stage b.	Folliculin 200-300 m. u. orally daily
{ Stage c.	Folliculin as in b, or theelin 1-2 c.c. intramuscularly daily

Other conditions amenable to hormone therapy are:

Sterility, in which folliculin and prolan are given for 2 months, followed by rest interval of 1 month, and then repeated; treatment should last at least 1 year.

Habitual abortion, in which theelin is administered on the grounds that the probable cause may be a deficit in the production of the female sex hormone.

Nervous disturbances related to sex dysfunction, as menstrual molimina, dysmenorrhea, flushes, headache, or irritability, in which the theelin has given favorable results in many instances.

Inflammations of the adnexa, especially chronic and subacute, in which prolan, together with rest, has been found to shorten the course of the disease.

Cases of surgical menopause in which, however, only partial relief was obtained.

Cases of pituitary cachexia, or Simmond's disease, characterized by weakness, anorexia, loss of weight, hypothermia, hypotension, low basal metabolism rate, amenorrhea, decrease in libido and sexual power; in this disease, administration of prolan has been found advantageous; 1 case has been recently reported by Calder.

given only occasional benefit, require further clinical observation based on the use of standardized hormones.

CONCERNING THE SEROLOGIC STUDY OF SYPHILIS,

With Reference to Some Aspects of Its Clinical Utilization

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Of all diseases syphilis is the most protean in its manifestations and hence presents a diagnostic problem bristling with difficulties and complexities. It is the one disease which may truly be said to encompass the whole span of human existence, for its inception may be traced to the dim beginnings of intra-uterine life, and its scars may be found in the black and gloomy shadows of the grave. None of the 7 ages of man escapes it, and it passes as an heritage to his offspring. So far-reaching, therefore, and so comprehensive are its potentialities that a truly tremendous responsibility rests upon all who are concerned with its recognition and control.

Modern concepts of syphilis are based upon a trinity of epoch-making discoveries: The application by Wassermann, in 1906, of the Bordet-Gengou complement-fixation phenomenon to the study of the blood serum in syphilis; the almost simultaneous demonstration of the *Spirocheta pallida*, by Schaudinn and Hoffman, in the same year; and the laborious evolution of salvarsan, in 1910, as a result of the patient labors of Ehrlich.

Startling as was introduction of the complement-fixation reaction in the study of syphilis, the "Wassermann test", as it has come to be familiarly known, has become almost a common-place procedure, so common-place that there is some danger that its clinical application in some respects may exemplify the old adage that "familiarity breeds contempt".

Just as the simplification of the arsenicals has been responsible for faults of omission and commission in treatment of the disease, so, careless use of the Wassermann test has covered a multitude of sins, both in diagnosis and treatment, sins which must be—and are being—paid for by the patient. It cannot be denied that in a definite proportion of cases the diagnosis of syphilis, or the assumption of its absence, has rested entirely upon the result of *isolated* serologic examinations, and even more often have these been relied upon unwarrantedly as an index of cure. The result has been the production of situations tending to cast discredit upon the procedure, disregarding the fact that where confusion exists it is as often due to clinical misapplication and malinterpretation of the results as to laboratory ineptitude.

Rather paradoxically, the voluminous literature which has accumulated regarding the complement-fixation reaction has served to cloud rather than clarify the issue, for the physician in general; for much of it has had a relatively restricted circulation and, apparently, has attracted neither the interest nor the attention of the profession at large. Too often the physician has been uninterested in the development of technic, forgetting that the significance of the results cannot be dissociated from the reliability of the method employed. There is some justification, therefore,

for survey and recapitulation if only to emphasize certain aspects of importance which should govern the clinical utilization of this very valuable laboratory procedure.

First of all, in passing, it is unfortunate that the reaction is spoken of as a "test" and it is equally unfortunate that the term "test" has been so generally applied to laboratory procedures for, insidiously and perhaps subconsciously, the term has come to bear a definite implication and to connote an erroneous as well as dangerous significance to "positive" and "negative" results. It is essential to emphasize and reiterate that laboratory procedures, as applied to the study of disease, are *not tests* for the presence or absence of disease but *methods of examination*, the purpose of which is to detect in the body of the patient evidences of reaction to the pathologic stimuli exerted by the disease from the nature and degree of which the origin and character of the stimuli may sometimes be determined by inferential deduction. The complement-fixation test is no more a test for syphilis than the stethoscope is a test for pneumonia or tuberculosis, or the clinical thermometer a test for typhoid fever. As is the case with all the varied methods now available, it is not the procedure *per se* but its *interpretation as applied to the particular patient* which is of value and importance.

This digression is more apparent than real for the complement-fixation reaction—and the patient—have suffered from an easy acceptance of the results at their face value without due consideration of the many factors which may be of vital importance and exert a vital influence.

Syphilis stands preëminent among diseases as demanding the ultimate in clinical acumen, and while it is true that the laboratory findings should always be evaluated in the light of clinical experience and study, it is equally true that often, in syphilis, clinical evidence may be undetectable. History, there may be none; the initial lesion may be trivial, inconspicuous, or entirely overlooked; the secondary manifestations may have been mild, indefinite, or, rarely, evanescent or unobserved by the patient. The keenest search may fail to adduce physical or historic evidence and

yet—deep in the hidden recesses of the body; in the walls of the aorta; buried in the cells of any organ or tissue; hidden by a circle of battling fibroblasts or hobnobbing with the lymphoid garrison of the outlying posts of the defensive system, the regional lymph nodes; little groups of spirochetes foregather, the only evidence of their presence during life being a positive complement-fixation reaction and in death the searching eye of the microscope.

While the investigations of the past 25 years have demonstrated beyond doubt that the most constant *single* symptom of syphilis is the positive complement-fixation reaction, and while it follows from this that many cases must be diagnosed in the laboratory—and, indeed, can be recognized in no other way—paradoxically, it has been the serologist who has most loudly decried the blind reliance upon the laboratory, which is the unfortunate tendency of the day, and who has pleaded for a more general clinical appreciation of the complexities of the procedure and the necessity for safeguarding its use. The studies of the past, if they have not yet entirely solved the problems related to the serologic study of syphilis, at least have made plain their significance and pointed the way to their clinical application.

To discuss these in orderly fashion it is perhaps advisable to begin by outlining the basic principles of the complement-fixation reaction in so far as these are at present understood.

THE BASIC PRINCIPLES OF THE COMPLEMENT-FIXATION REACTION

The reaction is based upon the fact that syphilis is essentially a tissue disease; that its manifestations are the results of the attack made by the spirochetes upon the tissue cells; and that, as is common to all diseases, there is in response a tissue reaction the purpose of which is probably defensive and protective.

The complement-fixation reaction, therefore, was originally assumed to be a biologically specific phenomenon dependent upon the presence in syphilitic serum of specific antibodies. We now know, however, that the reaction does not involve the union of a specific

antibody with its antigen but that it is a colloidal phenomenon in which lipoids are the most prominent factor, although as yet we are uncertain as to the nature and origin of the lipoids concerned.

For this reason the substance, or perhaps more properly, the property of syphilitic serum producing the complement-fixation reaction, is spoken of as a reagin, concerning the nature and origin of which there have been numerous theories.

SPECIFICITY OF THE REACTION

If, however, the complement-fixation reaction is not biologically specific, its *relative* specificity has been demonstrated beyond dispute, and it may be stated with entire confidence that, *given an acceptable method in the hands of a competent worker*, a positive reaction in the absence of syphilis occurs in probably but 1 disease, yaws or framboesia.

The most probable reason for this is the close biologic similarity and perhaps relationship between the etiologic agents, the *Spirocheta pertenuis* of yaws, and the *Spirocheta pallida* of syphilis.

The early literature abounds in reports of false positive reactions in innumerable diseases and, as is often the case with medical literature in general, these reports are still transferred to the literature of our own times. Nevertheless, to anyone familiar with the subject it is quite obvious that these false reactions were sometimes due to the fact that syphilis, although not clinically evident, was still coexistent, and more often to the technical imperfections of early methods as well as, not infrequently, to the technical errors introduced by inexperienced workers. *For there will never be a method in which false positive reactions cannot be produced by technical errors of manipulation.* This possibility, however, makes it doubly incumbent upon the physician to be sure of the skill and conscientiousness of the serologist as well as cognizant of the delicacy and reliability of the method he employs.

THE ANTICOMPLEMENTARY REACTION

An occurrence disconcerting to the physician, and still more so to the patient, is the

anticomplementary reaction. To understand this, one must also understand the mechanism of the test, which may be thus briefly outlined.

There are 3 essential components in the complement-fixation reaction: the patient's serum, which may or may not contain syphilitic reagin; the antigen extract, the term being really a misnomer, as it is simply a colloidal, lipoidal suspension without true antigenic properties; and the complement, which is simply a normal serum, usually from the guinea-pig, and which serves as a connecting link between the antigen and reagin which cannot combine of themselves.

In the test proper, these 3 reagents are brought together under circumstances conducive to the interaction of antigen and reagin, if reagin is present. All 3 components, however, are colorless, homogeneous suspensions in which, regardless of what may have occurred, no gross changes are detectable. The second part of the test is simply an endeavor to ascertain by means of an indicator what has happened, to find out whether or not the antigen-reagin combination has taken place. The indicator chosen for the purpose is spoken of as the hemolytic system and comprises and utilizes a protective mechanism belonging to the field of immunity.

If a rabbit be injected intravenously with a suspension of blood cells from another species, a protective mechanism is set in motion, the purpose of which is to remove these foreign cells from the rabbit's circulation. This removal is accomplished by the appearance of specific antibodies which have the property of so acting upon the foreign blood cells as to enable them to be dissolved by the natural complement in the rabbit serum. These antibodies are hence spoken of as hemolysins. Now, hemolysins are thermostable; that is, they are not destroyed by exposure to a temperature of 56° C. for periods up to 30 minutes, whereas complement is thermolabile and is destroyed. Hence, if a rabbit serum containing hemolysins is heated to 56° C. the complement is destroyed while the hemolysins remain, and such a serum will be unable to destroy the appropriate blood cells until a new supply of complement has been added.

The second part of the complement-fixation

reaction utilizes this biologic immune reaction and consists of the addition, to the already completed test, of a suspension of red blood cells and their appropriate hemolysin. There are now in the test tube the ingredients for 2 reactions: on the one hand, the reagin and antigen may combine without obvious manifestation; on the other, the blood cell suspension and the hemolysin may unite, the result of which will be hemolysis, or the solution of the blood cells, which will be visible to the naked eye.

The essential feature which makes the test possible is the fact that both reactions involve the use of complement. The antigen suspension does not contain complement; the complement in the patient's serum has been destroyed by heating the serum to 56° C. before the test—which is spoken of as inactivation of the serum—the cell suspension used in the hemolytic system has been washed free of complement-containing serum, and the complement in the hemolysin has been destroyed by heat.

The only complement present is that which has been added in the guinea-pig serum and this amount is so adjusted that there will be sufficient complement available for one or other reaction but *not for both*. If antigen and reagin have combined, the complement is used up or "fixed" by this reaction and none will be available for the hemolytic reaction, evidenced by the fact that the cell suspension remains turbid and unchanged; hence, negative hemolysis indicates a positive complement-fixation reaction. On the other hand, if reagin was not present to combine with the antigen, the complement will not be fixed, will remain free to take part in the hemolytic reaction, and hemolysis takes place as indicated by a clear red solution due to the liberation of hemoglobin from the dissolved red cells. Positive hemolysis thus indicates a negative complement-fixation reaction. It is quite apparent that complement is an essential component of the reaction and that anything which interferes with its activity will interfere with completion of the test.

Under certain circumstances the serum to be tested may, of itself, and without regard to the presence or absence of syphilitic reagin,

possess the property of destroying the complement. Such a serum is spoken of, therefore, as anticomplementary. It is obvious that if the activity of complement is inhibited by the serum *per se*, there will be no hemolysis and that, hence, the reaction may appear to be positive although this appearance is really due to the inhibition of the complement by the serum in the absence of reagin. Such an occurrence is detected by the serum control tube in the test which contains only the serum to be tested and complement. Upon the later addition of the hemolytic system, hemolysis should occur. If it does not, then the serum is anticomplementary and the test cannot be read. Such a reaction is recorded simply as "anticomplementary" and conveys no information as to the presence or absence of reagin.

Serums may be anticomplementary for a variety of reasons. This property is apt to develop when the serum is kept at room temperature, with consequent hemolysis; when it contains traces of antiseptics used in sterilizing the syringe and needle; when the serum is bile-stained or chylous, as when collected during the process of digestion; or, when it is infected with bacteria, as well as because of spontaneous changes the exact nature of which remains unknown. Fortunately, many of these anticomplementary substances are destroyed by heat. Some, however, are thermostable and it is those which are responsible for the anticomplementary reactions.

While, as has been stated, anticomplementary reactions are in general without significance, evidence has accumulated to show that when they occur with freshly collected serum they may often be suspicious or suggestive as many such specimens later, when retested, are frankly positive. While this may be borne in mind, it simply emphasizes the only deduction to be drawn from an anticomplementary reaction and that is that the test must be repeated until it is one thing or the other—negative or positive.

One thing else may be emphasized: With acceptable present-day methods the incidence of anticomplementary reactions is low, usually less than 0.5%. It may be taken as a dictum that *a high incidence of anticomplementary reactions may be regarded as an indication of*

technical imperfections, either in collection of the specimen or performance of the test.

FALSE POSITIVE REACTIONS

Positive reactions in the absence of syphilis may originate in either of 2 ways:

(1) Those resulting from the presence in the serum of a reagin indistinguishable from syphilitic reagin; and (2) those due to technical imperfections or technical errors in the conduct of the test, which can be guarded against only by technical refinements and meticulous care on the part of the serologist.

While the older literature abounds in reports of non-specific reactions in a comprehensive category of diseases, technical refinements of later years and extensive studies of innumerable investigators have shown beyond cavil that these reports were due in large measure, first to technical deficiencies of the older, crude methods, and, secondly, to the coincident presence of latent, asymptomatic, and clinically undetectable, syphilis.

With the methods now in common use—and especially is this true of that described by Kolmer—there seems little doubt but that yaws is the only disease in which false positive reactions consistently occur. It is obvious, again, that a high incidence of reactions which can be shown to be false, is an indictment, either of the method itself, or of the serologist, as suggesting carelessness or technical errors in its conduct.

It is important to emphasize that the mere absence of demonstrable clinical or historic evidence of syphilis cannot of itself be taken as indisputable evidence that the positive serologic reaction is false and non-specific. It must be remembered that the chronic and concealed stages of syphilis constitute its greatest menace; that the positive reaction may have no relation to the presenting symptom as seen by the clinician; that it does not automatically indicate the syphilitic nature of the obvious lesion; and that, while clinical evidence interpreted in the light of clinical experience is always one of the most important of diagnostic criteria, clinical experience has amply demonstrated that many cases of syphilis are only brought to light by the serologic evidence obtained in the laboratory.

A positive reaction, therefore, when consistently found, casts the burden of proof upon the clinician, and its falsity must be demonstrated before it can be off-hand so labelled. For this to be true, however, *the clinician must be satisfied of the reliability and delicacy of the method employed, and the skill and integrity of the serologist.*

THE WEAKLY-POSITIVE REACTION

Interpretation of the weakly-positive reaction as related to diagnosis is a matter of difficulty demanding close correlation of the clinician and serologist, and a maximum combination and utilization of acumen, experience, and common sense. While it is dangerous, to say the least, to base a diagnosis of syphilis upon a single weakly-positive reaction, nevertheless, it must be recalled that such reactions are often the first link of a later clinically demonstrated chain of evidence. They cannot safely be entirely disregarded, demand at least a repetition of the test, suggest utilization of the provocative procedure, and may well enlist coöperation of the serologist in their interpretation, for it is he who should be best informed as to the limitations of the method he employs.

THE PROVOCATIVE REACTION

Latent, chronic, asymptomatic syphilis is a diagnostic problem of no mean proportions. Whether latency be regarded as a balance between the offensive forces of the spirochete and the defensive mechanism of the body, or as an indication that, by virtue of long habitation, the tissue cells have become tolerant of and no longer react to the invader, it is apparent that so long as this balance exists there will be no tissue reaction; that without tissue reaction there will be no reagin production, or this will be reduced to a minimum, perhaps undetectable; and hence the complement-fixation reaction will be negative or at best inconclusive. In such cases one may resort to what is known as the provocative reaction.

The purpose of this procedure is, by the use of spirocheticidal drugs, either to liberate endotoxins from killed organisms, or else, by stimulating organisms not killed, to bring

about a tissue reaction productive of reagin in detectable amounts.

The mechanism is thus comparable to that involved in the production of focal reactions following the use of tuberculin, or to the so-called Jarisch-Herxheimer reaction in which, after the use of mercury or arsenicals, the local activity of syphilitic skin lesions is temporarily increased.

This procedure at times is of great value but has distinct limitations which may be briefly summarized as follows:

(1) It may not always occur, because of variations in the tissue reaction evoked or in the reagin response to tissue reaction.

(2) Reagin production may be slight and, what is of more importance, it may be very transitory and evanescent.

(3) Reagin production in detectable amount may be delayed for as long as 7 days after the provocative medication.

To be carried out ideally, therefore, the complement-fixation test should be done daily for 1 week. As this is rarely possible in practice, a single test is best taken about 48 hours after administration of the drug which should preferably be one of the arsenicals. If mercury or iodides are used, they must be administered for at least 10 days prior to the test. Except in congenital syphilis, a positive provocative reaction is of diagnostic value, but a single negative provocative reaction can never over-balance the significance of suggestive clinical evidence.

FALSE NEGATIVE REACTION

The negative complement-fixation reaction, unless carefully weighed in the balanced scales of experience, may constitute a most important obstacle to success in the management of syphilis, especially in its relation to diagnosis. From what has been said concerning the mechanism of the reaction, it is obvious that a method which will invariably and inevitably detect syphilis, under any and all circumstances, is an ideal impossible of accomplishment. The most important reason for this is the fact that there is a limit to achievable delicacy beyond which the danger of false positive reactions becomes imminent. When reagin is present only in amounts below the limit of delicacy of

the method, false negative reactions result. In addition, when the disease is so quiescent that tissue reaction and reagin production are absent, a false negative reaction again results. On the other hand, a false negative reaction may occur when methods are devised only to detect reagin in relatively large amounts; and, finally, the important fact that the reagin content of the blood in syphilis may undergo spontaneous fluctuations and wide variations, accounts for the occurrence of a false negative reaction *on a single test* in a definite proportion of cases.

The moral to be drawn from these established facts is, that a single negative reaction can never, in the face of suggestive clinical evidence, be accepted at its face value, and can never suffice of itself to eliminate syphilis as a diagnostic possibility.

COMPLEMENT-FIXATION REACTION IN RELATION TO TREATMENT

It is in its relation to the treatment of syphilis that the complement-fixation reaction has been, perhaps, most abused, because of the very regrettable tendency to treat the serologic manifestations of the disease rather than—not merely the disease but—the patient who has it. This is not to say that the reaction has no place in the treatment of syphilis, for it is here that it has a paramount value, as indicating by its persistence the necessity for continued treatment.

While treatment which has for its only or primary objective a change in the serology is strongly to be decried; and while there has been much discussion concerning the necessity for continued treatment in the so-called "Wassermann-fast" cases; the present consensus suggests that the eradication of positive serologic manifestations is highly desirable in the avoidance of late and intractable sequels, and that "Wassermann-fastness" is generally an indication of a deep organic or neurologic focus.

An error of great magnitude is, to rely blindly upon negative serology as an indication for the cessation of treatment, which later developments may show to have been premature. There is little doubt but that syphilis is a curable disease, but there is still less doubt

that no one can know the day or hour when cure has been achieved in a particular patient.

There can never be a safe standard of cure based upon any set number of negative serologic reactions. While it is true that the greater their number and the longer the period of time over which they have been secured, the greater becomes the possibility of cure of the disease, this is always still but a possibility, at best a probability, but never a certainty.

A series of negative reactions, no matter how great, should be only an incident of the search for a recurring positive reaction. The syphilitic, to be safe, must be under constant and prolonged observation.

Wassermann reports. From what has been said, it is apparent that the clinician is amply justified, and but fulfilling his duty to the patient, if he is meticulous as to the character as well as the origin of the serologic reports rendered to him. He is well within his rights in demanding something more than anonymous reports; in insisting that he be informed as to the method used and its standards of delicacy and reliability; and in ascertaining for himself the ability of the serologist, not only to perform the test but, when necessary, and so invited, to assist in its interpretation. He should regard with distrust, not only the serologist who apologizes for his results or is willing to trim or adjust them to conform to clinical discordance or exigency, but also he who regards them as the ultimate and partaking of divine revelation. And he will do well to remember that the division of physicians—into clinicians and serologists—is merely arbitrary and suggests only the phase of medicine in which each has a compelling interest. Personally, I believe that a complement-fixation report should always be quantitative, especially when the reaction is used as a guide to treatment. Success in the treatment of syphilis depends not so much upon the treatment itself as upon the duration of treatment, over how long a period of time it is administered; and, the one thing which most often renders treatment unsatisfactory is the difficulty of keeping the patient under observation and control, especially when to his eyes there is no apparent reason for such continuation. It

is here that the quantitative report has its greatest value as furnishing graphic evidence, not only of the necessity for further treatment but also, which is of great clinical utility, the effect of the treatment already administered.

Few patients fail to inquire how much treatment and how long a time will be required to eradicate the disease. While the ill-trained and even unscrupulous are ready to reply in terms of so many "shots", the conscientious physician is forced to say that he does not know. Bearing in mind that the perseverance of the patient is regulated to no small extent by his psychology and his faith in his medical adviser, and also that continued treatment without manifest serologic improvement is apt to lead to discouragement, the advantages of a quantitative method whereby serologic improvement, no matter how minor, may be demonstrated, requires no labored comment. The now archaic $+1$ to $+4$ scale is purely arbitrary and in no way truly quantitative, as may easily be exemplified. Recalling the mechanism of the complement-fixation test it is apparent that a given dose of complement suffices for a definite amount of reagin—say 10 units. It is obvious that a serum containing 10 units and one containing 20 units will both fix complement completely and thus give a $+4$ reaction.

If we assume that a given course of treatment reduces the reagin content of both serums by 5 units, then the 10 unit serum will give a $+2$ reaction. The 20 unit serum, however, although now containing but 15 units, will still give a $+4$ reaction and show no evidence of serologic gain. Unless this patient is intelligent and the problem has been explained to him at length, he may—and often does—one of 2 things: He becomes discouraged, despondent, and skeptical as to results to be expected from the treatment given him, and perhaps drifts into the hands of quacks or cults; or, what is not without effect upon the reputation of his physician, he loses faith in him and his methods and goes elsewhere, perhaps just as he was about to drop below the $+4$ limit. He may be the more inclined to this latter course because, perhaps, he hears of another patient, also $+4$ but with only a 10 unit serum, who, after the same or

even less treatment proudly exhibits only a $+2$ or $+1$ reaction. A routine quantitative report, on the other hand, not only furnishes some basis on which to estimate the possible degree and extent to which treatment must be pushed in order to secure serologic effect, but starts the patient toward a definite objective, gives him graphic visual evidence of his progress, and helps to make clear to him the reason for delay in securing, in his case, results comparable to those secured in others, apparently the same but serologically quantitatively different.

Precipitation reactions. It has long been known that syphilitic serum when brought into contact with various colloidal solutions—water among them—may exhibit the phenomenon of flocculation or precipitation. The development of this procedure to a stage where it could be used with safety in the serologic study of syphilis is a product of the relatively recent studies of Meineke, Kahn, Hinton, Kline, and others. The exact status of the precipitation tests in syphilis has been the subject of extensive, vehement, and even at times of acrimonious discussion. The initial aggressive propaganda for their exclusive use to the elimination of all other methods, has largely subsided in the light of non-partisan considerations, and the smoke of conflict has now sufficiently cleared away to permit a balanced survey of the situation in its entirety. While serologists are not yet entirely in accord as to the similarity or dissimilarity of the mechanisms underlying these reactions, there is a gathering consensus of opinion as to the part each should play in the study of syphilis, so that this may now be rather definitely outlined. It is profitable, in order to understand the situation, to outline briefly the grounds upon which exclusive use of the precipitation reactions has been urged.

First, simplicity of technic: Precipitation tests are undoubtedly simpler than complement-fixation reactions as regards the number of reagents, the amount of apparatus, and the time and labor involved. This simplicity, however, does not extend to the underlying mechanism, the actual technic, and its satisfactory performance, nor to the factors governing accurate interpretation of the precipi-

tation reaction. On the contrary, the inherent complexities of the reaction, and the necessity for the most meticulous attention to minutia, are just as imperative in the precipitation as in the complement-fixation test. It cannot be too strongly emphasized that precipitation tests are exceedingly dangerous in the hands of those whose understanding of their minutia is incomplete or superficial. Failure to appreciate that these procedures are neither easy nor simple has led to much confusion and some lamentable errors.

The second basis for their exclusive adoption is the rapidity with which they may be completed; and the force of this argument is lost unless one is prepared to maintain the necessity for instantaneous diagnosis in syphilis. I am not convinced of the necessity for precipitate haste in diagnosis; on the contrary, as has been well said, it is better to "be quick to suspect syphilis but slow to diagnose it". So great is the influence of a diagnosis of syphilis upon the future of the patient and so gravid with disastrous potentialities, that it is far better to be sure than precipitate. We should not grudge nor regret whatever may be required in time or labor to render the diagnosis free from avoidable errors, or to safeguard the treatment of this disease. Neither clinician nor internist can evade a thorough examination, because it is time-consuming; nor can the surgeon avoid adoption of an efficient technic, simply because it is laborious. The clinician and serologist in a similar situation, must take the same stand.

The present status of precipitation reactions may thus be summarized:

(1) They possess a degree of delicacy and relative specificity comparable to that of the complement-fixation test and are thus well suited to the study of syphilis. However, when applied to diagnosis the significance of the weakly positive or border-line reactions must be interpreted with great care, and the occurrence of false positive reactions must be remembered.

(2) In syphilitics under treatment the precipitation reaction not uncommonly remains positive longer than the complement-fixation reaction, and is thus of value in checking the

result of treatment and in indicating the necessity for its continuance.

(3) A factor of great importance in establishing the true position of the precipitation reactions is the occurrence of false negative reactions which, for reasons already outlined, cannot be avoided with any method. Moreover, for reasons yet to be clearly defined, syphilitic serum, at times, shows a marked antigen affinity or selectivity. In other words, when in the presence of 2 antigens it may react with one and not with the other. For this reason, a serum at one time may react with the complement-fixation test and not with the precipitation test; or, the reverse may occur. This phenomenon in itself constitutes a potent reason for the simultaneous use of both procedures rather than the exclusive use of either, and illustrates anew the fallacy of reliance upon a single negative serologic reaction, however obtained. From accumulated evidence the conclusion is unavoidable that both reactions should be used, one for checking and corroborating the other.

From this cursory outline of a very broad and comprehensive subject it is apparent, and cannot be too strongly emphasized, that the serologic study of syphilis is both a clinical and a laboratory problem; that the serologist and clinician have a joint responsibility in this matter; and that each may well and justly demand something of the other.

What should the clinician demand of the serologist?

First—and foremost—that he *be* a serologist, not merely a manipulative expert, but thoroughly grounded in the elements of his specialty and thoroughly competent, not only to evaluate the studies of others, but to conduct informative investigations of his own.

Second, that he should be a continual and assiduous student of his own and related specialties, and that he should take an active part in the constant endeavor to throw light upon the serologic phenomena of syphilis.

Third, that when called upon he should have sufficient clinical experience to assist intelligently in correlation of the combined clinical and laboratory data of a particular case.

Fourth, that on the one hand he should not be unalterably wedded to a single method but

willing and eager to investigate the merits of new proposals and, when warranted, to adopt them entirely or in part; while, on the other hand, he should not hastily adopt new procedures—no matter how promising—until their worth has been demonstrated by adequate and careful investigation.

And, finally, that he should be satisfied by trial and experience of the reliability and delicacy of the method he uses, willing and able to interpret its results, and equally willing to substitute another for it when this shall have been proved superior.

Not only is the physician entitled to demand these qualifications from the serologist, but the patient, by whom the price of lamentable errors must be paid, is entitled to expect such care on the part of the physician.

In view of the fact that, under certain circumstances, the diagnosis of syphilis can be made only in the laboratory, it is difficult to justify, and still more difficult to understand, the often haphazard use of so important a procedure as the complement-fixation test. It is difficult to understand why so many physicians apply, without hesitation, the results of the test dogmatically to problems of diagnosis and treatment, and without evincing either curiosity or interest as to competence of the worker or reliability of the method in use.

Now, what may the serologist expect of the clinician?

First, that he be sufficiently familiar with the mechanism of serologic reactions to appreciate the importance of minutia, beginning with collection of the specimen, and to estimate for himself the status of varying and various methods.

Second, that he appreciate that a positive or negative report signifies only that the blood at the time of examination did or did not possess the property of fixing complement in the presence of a syphilitic antigen.

The significance and interpretation of the reaction is a matter wholly beyond the fact of its occurrence and is influenced by many factors: the other collected data relative to the case—for which the clinician is responsible; the suitability of the specimen for examination—for which both serologist and clinician are responsible; and the reliability and delicacy of the method used for the examination—for which the serologist must assume responsibility.

Third, that if the clinician desires to place on the serologist the burden of responsibility for interpretation of the reaction, he must appreciate the necessity for giving the serologist the facilities and courtesies extended to any other consultant for obtaining pertinent clinical and historic data.

When these mutual requirements are fulfilled the serologic study of syphilis will be placed on a safe and sane basis.

THE FAMILY DOCTOR

He'd look right strange in Heaven, I suppose,
Our old gray doctor with his shaggy head,
His knobby limbs, his bony Roman nose,
His keen blue eyes and hair half white, half
red,
Clad in that antique overcoat he wore
And always hung behind the kitchen door.

If Heaven is a stately golden street
Where only healthy, handsome angels dwell;
If all the citizens are trim and neat,
I'll steal along the valley road, to Hell,
For well I know he'll leave the Heav'nly Host
And hurry down where people need him most!

—Elizabeth Newport Hepburn.

METHOD OF PROCEDURE FOR ORGANIZATION OF A SECTION OF THE MEDICAL SOCIETY OF NEW JERSEY

(Prepared by the Executive Secretary, in accordance with instructions adopted by the Board of Trustees, Nov. 25, 1928.)

Whenever a request is made by any member or group of members for the establishment of a Special Section within the Medical Society of New Jersey, with the object and for the purpose of holding scientific sessions coincident with and as a part of the Annual Meeting of this Society, and the House of Delegates or the Board of Trustees has granted such request, the Trustees shall appoint or designate an individual or a committee, and confer upon that agency the necessary authority to arrange a program for the first meeting of the said Section, and also to serve as Chairman of the Section, presiding at its meetings until his successor shall have been elected by the Section from its registry of attendants.

It shall be the duty of the above-mentioned agent (or agency) to prepare a program for the contemplated first meeting of the Section, and to submit such program to the Chairman of the State Society's Committee on Scientific Work, for approval, at least 3 months prior to the date set by the Trustees for the next Annual Meeting. In the event that the program submitted fails to win full approval, it must be altered in such manner as the said Committee Chairman may direct, since he is responsible to the State Society for the providing of a convention program harmonious in all its parts.

For the purpose of maintaining continuity, and in accordance with the By-Laws (Chapter III, Section 1, final clause), the first order of business at the session on the afternoon of the second day, shall be the election of a Chairman to serve the Section through the following fiscal year.

Inasmuch as Sections are organized primarily for the purpose of bringing together groups of members of the State Medical Society holding like interests, mostly but not necessarily practicing as specialists; and, as *the very existence* of the State Society—with its component county societies on the one hand, and its own unit relationship to the American Medical Association on the other—depends upon its adherence to the democratic principle of *equality* in membership; and further, because it is highly desirable that specialists may be given opportunity to learn from general practitioners—as well as that

provision be made for the last mentioned class to learn from the specialists; therefore, it must be understood by all—that Section meetings must be open, at all times and in all respects, to all members of the Medical Society of New Jersey, and that all such members shall enjoy equal rights and privileges.

It should be equally well understood, of course, that with reference to Section programs—as with reference to the General Meeting programs—the *right to offer* (or the *privilege* of offering) a scientific or literary contribution does not necessarily mean its *acceptance* for the program; each and every program offering must be received and considered, but acceptance rests with the agent or agency charged with responsibility for preparation of the program and the decision of acceptance or rejection must be based upon the merit, or the suitability, of the matter offered.

As all literary and other scientific contributions to the Sections become the property of the State Society, and will be considered with a view to publication in the Journal, contributors should carefully study, and then scrupulously comply with the few simple rules established by the Society and the Journal's Editor. As to "papers" and "reports", those rules are:

(1) All matter for publication must be *type-written* on *heavy* (not thin, flimsy, transparent) paper.

(2) All type-written documents must be with lines—*double-spaced*.

(3) Please do *not* use abbreviations. The Editor may find it necessary to alter your material by inserting or changing to abbreviations, but because scarcely any 2 writers employ the same list of abbreviations, and because the Journal must preserve at least the semblance of *consistency*, authors are requested to avoid use of abbreviations and to leave that prerogative to the Editor.

(4) As authority for spelling of medical words—use Dorland's Dictionary, Fifteenth Edition; for general spelling, use the Standard Dictionary.

(5) Misused words. Exercise some care in the choice of words: Do not say *case* when you mean *patient*; *due* when you mean *because*; *temperature* when you mean *fever*; *as* for *like*; and make some distinction between the prepositions *of* and *for*; *in* and *on*; *to* and *of*; too often these words are used as if they were synonymous.

(6) The cost of "cuts"—"electrotypes"—or other forms of illustration to be used in publication of an article must be borne by the author.

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EDITOR:

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Each member of the State Society is entitled to receive a copy of the JOURNAL every month. Any member failing to receive the paper will confer a favor by notifying the Chairman of the Publication Committee of the fact.

NOTE.—The transaction of business will be expedited, and prompt attention secured if:

All papers, news items, reports for publication and any matters of medical or scientific interest, are sent direct to The Editor, Dr. HENRY O. REIK, Vermont Apartments, Atlantic City, N. J.

All communications relating to reprints, subscriptions, extra copies of the JOURNAL, books for review, advertisements, or any matter pertaining to the business management of the JOURNAL are sent to THE CHAIRMAN OF THE PUBLICATION COMMITTEE (address above), Newark, N. J.

STATE SOCIETY-RUTGERS UNIVERSITY POST - GRADUATE OR UNIVERSITY EXTENSION COURSES

We have recently observed at meetings and in county society reports a growing tendency to refer to the Medical Lecture Courses specifically prepared for and made available to members of our State Society, as the—"Rutgers University Courses"—and while we have neither desire nor intent to withhold from the University any credit due, or which may accrue, to that institution for its part in this great work, neither do we feel inclined to let the Society be deprived of its share of the glory, through mere carelessness of expression by its own members. The compound phrase used as the title for this editorial may be, to some extent, cumbersome in this day of haste and rather loose use of language, but it has at least the merits of being accurate, and truthful, and of placing properly such credit as may belong to the participants in the project. The idea originated in, and the plan was initiated by, the Society; specific factors essential to its conversion, or transformation, from a theoretic scheme to a practical working plan, were supplied by the University from its experience with somewhat similar projects; in the process of development, the idea has been accorded full and equal coöperative support by Society and University alike; and, we dare to predict that satisfactory continuance of this excellent work, and further development of the plans toward their fullest possible fruition, will progress just so long as

the institutions concerned contribute equally and harmoniously.

The medical society speaks of these as—*post-graduate* courses of teaching or study; the University refers to the same as—*extension* courses of teaching or study; both influenced by previous customary usage of those terms, and neither caring much about which word the other employs, so long as it is understandable in its application. In the matter of designating an appropriate share of responsibility or of credit, however, both would, we are sure, desire an equally accurate use of determining words.

So, as expressive of the facts; as attributing to each its proper relationship; and, as a means of preserving, and assuring, to each its relative share of responsibility and of credit; we suggest that when speaking or writing about these courses of study, *both institutional names* be always used—linked together by a *hyphen* or by the word *and* (State Society-Rutgers University Medical Courses—or—State Society and Rutgers University Medical Courses).

Incidentally, we may say that, in so far as we can learn, no other state medical society has yet put forth anything approaching, in character and quality, these post-graduate study courses, and made them available to all members of the society, in every county in the state, delivering the goods *practically* on the very door-step of the subscribing physician; which constitutes another instance of *leadership*, highly praise-worthy, on the part of the Medical Society of New Jersey—the oldest state medical society, in its years of existence;

but the youngest, in vigor and activity as concerns medical organization work.

PROGRAM FOR ANNUAL MEETING

In this issue of the Journal is published the complete program for the 166th Annual Meeting of our State Society. We believe you will find it exceptionally interesting.

With particular reference to the scientific aspect, it deserves to be recorded that Dr. Ralph K. Hollinshed, Chairman of the Committee on Scientific Work, has become a highly proficient program-builder; doubtless as a result of his long service as Secretary of the Gloucester County Society, and as a member of this particular State Society Committee. This latest evidence of his skill does him credit, and promises also to do credit to the organization.

About 5 years ago, at a meeting of the Board of Trustees, there was an interesting discussion as to whether our membership was sufficiently large to permit—let alone justify—the holding of Section meetings. Fear that Section attendance would seriously reduce attendance at the General Sessions was off-set by the argument that to provide the specialists with more papers on topics of direct concern to them would increase the general attendance at the convention, by attracting members who, under then-existing conditions, rarely came. Permission to experiment with 2 sections was finally granted. The results were so satisfactory that a third section was added in 1930. This year still another section is to be set up—on Radiology—and the program announced indicates that it, also, starts with assurance of success.

In the Section Chairmen for this year—Drs. Stanley Nichols, H. L. Harley, Allen G. Ireland and W. G. Herrman—the General Chairman of the Committee on Scientific Work, Dr. Hollinshed, has had a group of the ablest coadjutors; and the complete scientific program, general and sectional combined, will be found to contain an array of 60 papers, every one of which concerns a medical problem of importance.

COUNTY SOCIETY PUBLICITY

The Hudson County Medical Society has just entered upon an interesting experiment, following, in a measure, the news-paper advertising campaign initiated by the Bergen County Society; as first tried by the Bergen Society, it was what might be called *group advertising*. That Society carried, each week, a certain amount of space in the county newspapers; in which it ran articles on such subjects as immunization against diphtheria, the importance of vaccination, and other measures for disease prevention.

The Hudson County Society is, however, going considerably further than its predecessor in this experiment. Its first step consisted in publication of its entire membership list, with addresses, in the news-papers. This was accompanied by an article asking the public to observe whether the family physician displayed in his office a *Certificate of Membership* in the County Society; each member having previously been supplied with such a certificate.

The next step was to hold a *Function* on board the S. S. Exeter, on April 23, at which 31 recently elected members were inducted. Members of the lay public, especially the press, were invited. The speeches, delivered by Ex-Presidents of the County Society, were on the general topic of relationship between public and profession, as seen from different angles, and were broadcast from a Jersey City radio station—WHOM.

This is as far as the new campaign has progressed at the present writing. In the June issue of the Journal we will publish a statement of plans for its future development. Meanwhile, in the Department of Public Relations in this issue, are 2 items bearing upon the same idea as it is now being considered by other professional groups, notably the lawyers and dentists.

Naturally, in this, as in any such radical change from established custom, the State Medical Society is not, and probably will *not be a unit in voicing approval*. But regardless of whether our personal opinions, are favorable or unfavorable, we shall all watch with interest the development of these plans.

Presessional Reports of Officers and Committees of the Medical Society of New Jersey

These reports have been prepared for publication in the Journal 1 month in advance of the Annual Meeting of the Society, in compliance with the official requirement established several years ago for the purpose of giving to Delegates advance information concerning matters with which they may have to deal in the House of Delegates. In some instances it is not possible to present a complete report so far in advance of the convention; the society's fiscal year not ending until June first. Consequently, the "Annual Report"—actually presented and read to the Delegates—may differ in some respects from these advance, "Pre-sessional" or "Preliminary" reports; they will in the main, however, harmonize even where they do not exactly correspond.

The Executive Secretary notified all officers and Committee Chairmen, on March 20, to consider their duty in respect to the above-mentioned rule; and further informed them that such report as they desired to have published in this issue of the Journal should be in the hands of the Editor on or before April 20. The following reports constitute all that had been received up to the last mail delivery of April 30.

REPORT OF COMMITTEE ON SCIENTIFIC PROGRAM

The Committee on Scientific Program, together with the Officers of the State Society and the Chairmen of the several Sections, has arranged the program for the One Hundred and Sixty-sixth Annual Meeting of the Medical Society of New Jersey.

The Chairman wishes to take this opportunity to thank all those who have helped in the formation of that Program; and he would especially mention: Dr. Hagerty, President of the Society; Dr. Morrison, the Secretary; Dr. Reik, the Executive Secretary; and the Section Chairmen, Drs. Allen G. Ireland, H. L. Harley, Stanley Nichols and William G. Herrman. These men have worked together in harmony, and have coöperated with the General Chairman to the fullest extent.

The aim of the Committee has been to put on a good program, with as many papers as practicable presented by men of our own State, and with all sections of the state, geographically speaking, equally represented.

The hope of the Committee now is, that the program may be well received.

Submitted by the Committee on Scientific Work,

Ralph K. Hollinshed, Chairman
W. Blair Stewart
Louis C. Lange

PRESESSIONAL REPORT OF THE EDITOR AND EXECUTIVE SECRETARY

The wheel of time with its recurring dates which call for the performance of specific tasks, revolves so rapidly that we seem scarcely to have finished one annual report before another is required. However, we greet the approaching demand with less reluctance than usual; probably because the

lengthy report of last year to the House of Delegates (Aug. Sup., 1931, p. 6-14), makes it practicable to cover the requirements this year with a comparatively short report.

The evolution of this Society during the most recent 7 years' period, especially insofar as the accumulating achievements are traceable directly to their source in the editorial office or in the full-time service of the Executive Secretary, can be found in our successive annual reports (published each year in the Official Transactions); and in our periodic reports of the Tristate Medical Conference, the Annual Conference of County Society Secretaries and Reporters, and the Minutes of the Welfare Committee (all published in the Journal).

Consequently, our task at present is to bring that record up to date by briefly reporting the happenings of the passing fiscal year; which will now be done in our customary manner of dividing the new matter and publishing the several items under the headings employed in previous reports.

(1) *The Journal*. It should be unnecessary to say much now about the Journal, remembering the long explanatory statement made last year (Aug. Sup., 1931, p. 6-9), and our message would be short, were it not for the fact that some members do not, apparently, yet fully and properly understand the Journal's relationship and its value to the Society, nor even to themselves.

When, in 1930, the Journal had reached the size of 1000 pages for the year, we recommended that it be not further expanded, but held at that point for some time; and we have since held to that average. Doing so has, however, brought some interesting results. During most of the year we have published 12 original articles monthly, but even at that rate have not been able to print all the papers offered; though the accumulating of manuscripts has enabled us to raise the standard for acceptance. One curious result of selection and editing of articles is exhibited in 2 letters from which we now quote.

In one, dated so recently as April 22, a member says: "Permit me to say that during the past 6 months the Journal has shown great improvement in the general complexion of papers . . . in its selection of topics. . . . It makes interesting reading. . . . You are doing a good job, etc."

By contrast, the other, dated April 23, the very next day, written to the Chairman of the Publication Committee, says: "I was much disappointed that my paper in this month's Journal had been so unceremoniously abbreviated."

As you see, an Editor's life is not all "beer and skittles".

Quite recently we were asked whether the Journal could be reduced in size? Our answer was: Decidedly, no! Certainly not without impairment of function; not without serious loss to many members. At this moment we have in hand a sufficient number of original articles to carry the Journal, at the rate of 12 per month, through September; and at the close of the Annual Meeting we shall receive 60 additional manuscripts. This means the filling of all original article space for 5 months beyond September; or, in other words, through February 1933. Actually, the Journal can be re-

duced, of course, *but*, if you order its reduction, you will be sounding its death knell. Is it worth saving? That question is for you to answer; but, before answering, let us suggest that you turn to page 7 of the January Journal and read what Dr. H. Sheridan Baketel, himself an Editor of national renown, has said concerning this Society and its Journal.

When appointed, the Editor received instructions to build up a first-class State Society Journal. We feel now, and we say it with all due modesty, that if we had done nothing else than develop the Journal to its present stage of excellence, this Society would not be a loser on its total investment in the Editor-Secretary.

(2) *Public Education.* The work of this department (except the radio broadcasting, taken over by county societies) was entrusted almost entirely to the Field Secretary, Mrs. Taneyhill, this past year, and will be reported by her. We do wish here, however, to direct attention to a mid-season report thereon, in the February Journal, pages 153-155; and to say that the Field Secretary has conducted satisfactorily the heaviest program ever attempted in this field of work; has, in fact, performed an almost superhuman task. The number of letters from school superintendents and others responsible for her lecture appointments, praising her work and requesting return engagements, has been even larger than in previous years. Every such letter has been spontaneous; endorsements never having been sought, by any of us engaged in this work—the Field Secretary, the Board of Education's Medical Director, the Executive Secretary—but this office has received many letters similar to the following given now as characteristic:

From the Principal of a High School to the Medical Director of the State Board of Education: "Thank you sincerely for referring to us your Mrs. Taneyhill. Her talk was the most practical and useful that I have ever listened to in connection with the subject of health. If I had dismissed the pupils immediately after the talk, which terminated at 9.45 a. m., they would have secured ample practical knowledge for the whole school day."

(3) *Conference of County Society Secretaries and Reporters.* This conference has continued the good work we foresaw as a possibility when the idea for such meetings first came to us. To bring the record of its transactions up to date, you need only refer to the December Journal, pages 956-970. There you will find a complete report of the best meeting these officials have ever held. Indeed, it is an unquestionable fact that improvements noted in our county societies since this group organization was founded have been numerous and excellent.

(4) *Tristate Medical Conference.* We may best acquit our obligation to bring this feature up to date by referring you to the report published in the Journal of February 1932, pages 157-168, and the March issue, pages 253-263. In this last mentioned report, you will find the consideration given to Dr. Waters' plan for the guidance or control of specialism by the profession, and it constitutes one of the most important medico-economic discussions ever held in this state. May we suggest that you re-read it before the annual meeting, for it will, in all probability, be presented there for action.

(5) *Legislation.* Still again we can say—this matter you will find brought up to date in the Journal of last month—April—in the Welfare Committee Report, pages 349-351. Our record remains

unbroken—no bill which we have opposed has been passed, and every bill of importance which we have supported, during the past 5 years, has been passed.

(6) *Post-Graduate Courses.* This is one of our pet projects which early passed into other hands. It was devised originally by President Thomas, of Rutgers University, and your Executive Secretary, jointly. It was, after adoption by the Society, turned over to a Special Committee, with Dr. Cosgrove as Chairman, and our appreciation of the work done by the Joint Committee from the Society and the University, is to be found both on page 244 of the Journal of March 1932, and in an editorial in this issue. The latter, we may say here, begs that you refer to the project always as: The State Medical Society-Rutgers University Post-Graduate Courses. It is not only a "howling success", it is unique. Though national and other state societies have talked about the need for something of the kind, nothing like or equal to this New Jersey plan has ever yet been established elsewhere. The idea originated in this organization; the practical plan was worked out jointly; Rutgers makes no further claim, we are sure; and this Society should not throw away the credit earned and fully accorded, through carelessly referring to it as the Rutgers University Courses.

(7) *Woman's Auxiliary.* This organization is another of the projects started by your Executive Secretary but soon growing into an independent state; perhaps semi-independent in this case, because it was transferred, at the 1931 meeting, to an Advisory Committee appointed by the Trustees. Our chief contributions to the work of the Auxiliary this year have been (1) in further developing a special section of the Journal for matters pertaining to it, and (2) in encouraging the distribution of 2 of the "Primers" written by the Editor—Relationship of the Physician to the Public, and, The Woman's Auxiliary. In particular, a third edition (5000 copies each) of the first-named Primer is now being distributed throughout the country by the Auxiliary. For this distribution we owe special thanks to Mrs. A. Haines Lippincott, an ex-President of the State Auxiliary.

(8) *Antidiphtheria Campaign.* This work, turned over last year to the County Committees, has not progressed as had been hoped. The Executive Secretary has in mind a new plan for use in an effort to dispose of diphtheria in this state, but is not at liberty to divulge the facts at this time. You will soon, however, be fully informed.

(9) *County Society Visits.* During the year we have made 20 visits to 15 of the county societies; having attended 3 meetings of 1 society, and 2 meetings of each of 3 others. Further, we have officially represented the State Society at a number of other organizations—notable among which were the Delaware State Medical Society and the New Jersey Pharmaceutical Association.

(10) *Office Affairs.* Under this heading we may group several items. First, we take pleasure in repeating what we have been privileged to say in previous reports, concerning our Office Secretary, Miss Mahoney; i. e., that the Society is fortunate in having such a capable and loyal employee, and that the Editor-Secretary is doubly fortunate in receiving the direct benefit of her abilities.

Here, we desire to record also our appreciation of and thanks for the courteous and kindly treatment accorded us by the President, Dr. John F. Hagerty. Thoughtful and considerate of others, especially in the matter of work imposed, he has

made our official association more of a social function than a job to be performed.

Respectfully submitted by

Henry O. Reik, M.D.,

Editor and Executive Secretary.

PRESESSIONAL REPORT OF THE FIELD SECRETARY FOR 1931-1932

Although this preliminary report of the educational work of the Field Secretary for 1931-1932 of necessity excludes temporarily the 4 counties which remain to be covered before the middle of May, the record shows that the total number of people reached at this writing already exceeds, by 10,000, the complete figure for the previous banner year 1929-1930.

To date, 207 talks have been given to an aggregate audience of 65,183 individuals. Those in the adult groups numbered 3213; teachers and principals in school assemblies, 2413; pupils in school assemblies, 59,557. The majority of school audiences were of High or Junior High School grade. In the elementary schools no effort was made to reach pupils below the Fifth Grade.

Most important among the adult groups, from the standpoint of potential influence, were: the Atlantic County Principals' Association; the Social Agencies Conference of Orange; the Jersey City Nurses' Conference; the Monmouth County Council of the Parent-Teacher Association; 3 State Normal Schools—Paterson, Jersey City and Glassboro; 3 called meetings of all teachers, in Blackwood, Garwood and Woodbridge, and the Elizabeth Branch of the American Association of University Women.

Our program was endorsed for the third consecutive year by the Department of Public Instruction, through Dr. Allen G. Ireland. The 2 new subjects stressed were "The Common Cold" and "Medical Quackery and Nostrums". "The Life and Work of Pasteur" and "Mental Hygiene" were also occasionally called for.

The response from the separate counties has varied from indifference to a demand greater than could be met. Two counties showed no interest. It is, of course, understood that no discrimination whatever is exercised in the matter of accepting engagements. County schedules, as finally arranged, are the result of requests on the part of local school authorities, Parent-Teacher Associations, service clubs and other organizations.

The County Superintendent of Schools is, under the Department of Public Instruction, the key man in each county, as his knowledge of local conditions enables him to make the adjustments requisite to a workable schedule. He is, however, subject to certain limitations in promoting a program of this kind with the city school administrators, over whom he has no jurisdiction, and city principals are so besieged by requests from individuals and organizations for access to school assemblies that our offer is very apt to be pigeonholed, along with all the others that have not by some additional means been brought to his particular attention.

The logical intermediary between the Medical Society and the city schools is the medical supervisor, as he would naturally be expected to be interested in promoting any project of the society, and his recommendation would carry weight with

school administrators. Experiments along this line, however, showed that even the medical supervisor must be approached by the right member or members of the county society.

In one county, for example, the utmost effort of your secretary to obtain this intermediary service on the part of the Director of Health Education (as he is called) in the city schools, was fruitless. In New Brunswick, however, where an appeal to the city principal had elicited no response, Dr. Frank C. Johnson enlisted the cooperation of the Medical Supervisor, Dr. E. Irving Cronk, and thereupon suddenly, after 2 years, the doors opened. A program was arranged by which, in 1½ days, talks were given in 10 New Brunswick schools to a total of 4500 pupils and 170 teachers and principals. In this result of Dr. Johnson's prompt and effective support, there certainly seems to be ample evidence that similar interest and activity on the part of the members of the county societies throughout the state would greatly amplify the scope of this phase of health education.

Whether the talks that we offer find their more productive field among city or rural groups is a debatable question. The county superintendents have repeatedly expressed the opinion that they are especially valuable in rural communities which are deprived of much that cities provide in regard to health education. Some members of the Medical Society believe that the greatest need for such instruction lies in the more or less congested city districts. The experience of 5 years has led your secretary to the conclusion, with which many teachers agree, that this effort is most productive among groups, either city or rural, whose social and economic standing enables them to carry out the measures advocated. Among the very poor and among children of some of the foreign born population, home conditions are such as to make the adoption of even the elements of hygiene, as taught in the class room, a real problem.

It would probably not be disputed that the most important part of our annual audience is the several thousand teachers and principals and normal school pupils who could not be reached in such numbers except through the school assemblies. They are also most appreciative of the generosity of the Medical Society in providing, as it does, not only authoritative confirmation of the principles which they try daily to instill into the minds of the pupils, but also personal help in their own health problems. This debt to the State Society is often warmly acknowledged by school administrators from the platform.

REPORT OF WELFARE COMMITTEE

The newly appointed Welfare Committee for the year 1931-32, at the direction of the President, Dr. John F. Hagerty, met in Trenton on Sunday, December 13, for the purpose of organizing. Dr. A. Haines Lippincott was unanimously reelected chairman. The Executive Secretary, Dr. Henry O. Reik, presented his report, upon the progress of State Society affairs since June 1931, and calling our attention to matters of importance that had been held over from last year; namely, the question of seeking an amendment to the Hospital Lien Law; and the plan presented to the State Society, at the Annual Meeting, in June, held in Asbury Park, by Dr. Waters, for the regulation of specialism.

The State Director of Public Health, Dr. J. Lynn

Mahaffey, at the suggestion of the Executive Secretary, was invited to attend all meetings of the Welfare Committee; which invitation was later accepted by Dr. Mahaffey, and his active associates.

At the request of our President, a special committee, with Dr. Paul M. Mecray as Chairman, was appointed, to be known as a Public Relations Committee, to keep in touch with and to study any legislation proposed at Trenton that might affect the profession.

The question of amending the Medical Practice Act was discussed, and a sub-committee, with Dr. Andrew F. McBride as Chairman, was appointed to consider this matter and report back its conclusions.

Dr. McBride's committee sent to all Officers of the Medical Society of New Jersey, to several prominent members not at present holding official positions, and to all Members of the Welfare Committee, a questionnaire covering important matters other than those mentioned but, yet concerned with the Medical Practice Act; i. e., the Doctor's Title Bill, Annual Registration, and provisions for a Grievance Committee.

The recommendation of Dr. McBride's Committee, later presented, was to the effect that it did not seem to be an opportune time for the Medical Society of New Jersey to introduce any medical legislation.

Our Executive Secretary, Dr. Reik, secured as promptly as possible, copies of all bills pertaining in any way to medical legislation. After a careful study of those bills and presentation of his views thereon to the Welfare Committee, he was instructed to send to all State Senators and Assemblymen his usual letter, setting forth the State Society's position on each of those bills, and our reasons for either approving or disapproving of them.

Dr. Morrison and Dr. Reik were speakers representing the Medical Society of New Jersey at a hearing on Assembly Bill 257, an act to create a Department of Health; with the purpose of converting the present Board into a Department in conformity with the general plans of the Governor to reorganize the state government.

It was decided then to continue the same practice regarding legislation as in the past few years; namely, that members of the Welfare Committee should individually maintain personal contact with their own representatives in the Legislature, in their home counties, and thus be prepared to confer with such Senators and Assemblymen quickly, if necessary. The plan has again worked satisfactorily, for no bill that we opposed has been enacted into law.

Submitted for the Welfare Committee,

A. Haines Lippincott, Chairman.

REPORT OF THE PUBLIC HEALTH CONFERENCE COMMITTEE

Your Committee, appointed in accordance with a resolution adopted at the Annual Meeting of the State Medical Society, in June 1931, begs leave to present the following report:

At the first meeting, for organization, on October 5, 1931, the purpose of the Committee was defined as follows: "To coöperate with the Public Health Section of the Continuation Committee of the New Jersey Conference on Child Health and Protection in studying public health matters in the state of New Jersey; and to coöperate with other organizations and departments dealing with *public health*."

In pursuance of this purpose, a communication

was sent to all such organizations and departments and to the County Medical Societies, asking for their coöperation.

The work of the Committee was divided into the following 5 subjects:

I. The State Board of Health, particularly as to the need of full-time health officers.

II. The relationship of physicians to child health activities in the state.

III. The relationship of physicians to school health matters.

IV. The relationship of physicians to hospitals and hospital clinics.

V. The relation and coördination of physicians to health and welfare organizations.

At subsequent meetings of the Committee, detailed reports on these 5 subjects were received and debated, and the following resolutions for presentation to this Society were adopted, and are herewith presented:

I. STATE HEALTH OFFICERS

Resolved that the State Medical Society urgently recommends continuance by the Department of Health of *District Health Officers* to the full limit allowed, namely 6. (At present only 5 such officers are provided for and, by action of the Appropriation Committee, these will probably be dropped.)

II. CHILD HEALTH ACTIVITIES

Resolved that:

(1) Physicians should be in attendance at every type of diagnostic or consultation station, whether it be for adults or children.

(2) Physicians should be paid for such work.

(3) Communities should be educated to an understanding that these services are not to replace the private physician and are for those who cannot afford to pay a physician.

(4) This program should be carried out through friendly coöperation with organizations and public health authorities by the Public Health Relations Committee of the *State* and *County* Medical Societies.

III. SCHOOL HEALTH MATTERS

Resolved that:

(1) *All school clinics should be discouraged.* Immunization against diphtheria; vaccinations; surgical, dental and eye clinics; and any others, should all be discouraged because of the danger or abuse of such clinics, and for the more important reason that such clinics should be relegated to their proper place—the *hospital*. In rural districts, where there are no clinical facilities, the County Societies should make provision for indigent pupils as may seem most expedient.

(2) All pre-school examinations and treatment should be done by the *family physician*. Immunization against diphtheria and vaccination should be done for all children during the first year of life, since it has been shown that 60% of all cases of diphtheria in children occur before they are 5 years old.

IV. HOSPITALS AND CLINICS

In view of the special problem created by the increasing number of persons availing themselves of free dispensary and hospital service, who can afford to pay for medical service, and following the recommendation of the American College of Surgeons, that a definite system of determining the

social status of the patient in relation to eligibility should be established:

Resolved that: the State Society emphasize the necessity for developing a *social service department* in connection with every hospital in the state; and, furthermore, that this phase of the work be delegated to the Woman's Auxiliary to the State Society.

V. HEALTH AND WELFARE ORGANIZATIONS

Regarding the relation and coördination of physicians to health and welfare organizations, the following principles are suggested:

Principle 1. In order to establish a working relationship and coördination between physicians and health and welfare organizations, there must be created state and county committees or councils composed of the executive officials of the state and county medical societies and the executive officials of the health or welfare organizations, with regular meetings to accomplish such coördination.

Principle 2. All public health or welfare work of a medical nature performed by physicians, members of the State Medical Society, shall be on a salary basis except during a limited initial period for demonstration value of such work.

Principle 3. Public or private organizations, and physicians doing health work of any character, shall administer such work so that any person will be assisted in obtaining health facilities in direct proportion to their financial ability to carry their own responsibilities in this respect. A classification shall be made. Suggested classification:

Class 1. Those persons financially able to carry their own responsibilities in regard to health matters.

Class 2. The under-privileged class, receiving less than the living wage and entirely unable to pay for health facilities; persons listed in this class shall receive free treatment at public expense.

Class 3. Those persons who are only partly able to meet their health needs financially during severe or long continued illness or operations. The health needs of this class shall be adjusted by a coöperative plan conceived and directed by the State and County Medical Societies with the assistance of public and private health and welfare agencies.

Principle 4. All administration of these principles shall be with the object of preserving the private relationship between physician and patient.

Principle 5. It is now essential that state and county medical societies assume responsibility for the general health of the citizens of the state of New Jersey and provide means, in coöperation with health and welfare agencies, for the securing of health facilities by all persons regardless of their financial status. If this responsibility is not immediately assumed by our State Medical Society, then political, health and welfare agencies will assume—indeed they have already partly assumed—this responsibility, which will inevitably lead to a disruption of the personal and private relationship between physician and patient, and which is the most desirable one for the health needs of the *patient*.

In view of the above enumerated *principles*, your Committee recommends the following:

Resolved:

(1) That state and county committees or councils be formed, composed of the executive officials of the state and county medical societies, together with executive officials of the Health and Welfare

Organizations, for the purpose of holding regular meetings and of coördinating their work.

(2) That the time has come for the state and county medical societies to assume leadership and responsibility for the general health of the citizens of New Jersey, and thereby preserve the personal and private relationship between physician and patient, which is most desirable for the health needs of the *patient*.

In presenting this report, your Committee realizes that it has only made a beginning in the study of the questions involved, and respectfully suggests that this study be continued.

Respectfully submitted by this Committee,

W. G. Schauffler, Chairman
J. C. Schapiro
Stanley H. Nichols
F. C. Johnson
Julius Levy

REPORT OF THE MATERNAL WELFARE COMMITTEE

Just now, when *maternal welfare* is being discussed so widely, it is only fitting that the medical profession of New Jersey should take an active part in the general program. The State Society, at its last meeting, voted to have a Maternal Welfare Committee appointed by the President for the purpose of organizing Medical Commissions for Maternal Welfare in every County Society and coördinating their work.

The organization should be a *Commission*, and not a *Committee*, recognizing the former as more permanent in character and to function continuously from year to year. This is now being done but the work is proceeding slowly because a number of the County Society Presidents have been slow to appoint such a commission, or they have neglected to report to our Committee that appointments have been made. However, some progress is being made, and the following counties have taken steps toward organizing: Bergen, Cape May, Essex, Gloucester, Hudson, Hunterdon, Mercer, Middlesex, Monmouth, Morris, Passaic, Sussex, and Union (a total of 13.) Essex County has had such a Commission for Maternal Welfare for 9 years; having been up to this year the only county in the state with such an organization.

All of the men appointed seem to be very much interested. Most of our work has been done with individual members from the various counties, but a meeting for all members of the county commissions is to be held at Atlantic City, during the time of the State Society Meeting, in June; probably on Wednesday, June 15, at 8.30 p. m., and that Meeting will be open to any physician interested in maternal welfare problems.

One might well inquire—"What can such an organization do?" The Medical Commission for Maternal Welfare, in any county, should *take the leadership* for the various organizations working for improvement of maternity care. These organizations should all be coördinated, so that there will be no conflicting agencies. It may take considerable time to accomplish this, but when it is properly understood that such different organizations will still be allowed to function as they please, but that they become, in addition, associated with, and in a sense, part of a strong body they will all agree to coöperate. As President Farrand, of Cornell, urged in a recent address: "Let us arouse from our lethargy and assume the

leadership which belongs to us medical men for public health problems."

Too much must not be attempted at once. The work should fall under several heads:

(1)—*Pre-natal*. I know of no county in which the present pre-natal work cannot be improved. Then, why not improve it, and extend it, so that every part of the county is covered? A system of combining *visiting nurses* with *clinics* can be arranged so as to cover the rural districts as well as the towns and cities. A pre-natal card, or history blank, might be distributed freely to all physicians, as an incentive to improve their work.

(2) *Educational*. The public, like the physicians, must be convinced of the value of better maternity service. Two years ago, Essex County conducted a drive for better obstetrics, which lasted 3 months. Several meetings for physicians and nurses were addressed by leading obstetricians; and 1 meeting held for lay women, was addressed by Miss Corbin, of the New York Maternity Center.

(3) *Hospital*. Work at various hospitals can be improved by a little more attention to details. An annual report of cases should be obtained from each hospital, and suggestions for the better handling of obstetric patients may be made.

(4) *Follow-up and statistics*. More accurate statistics should be kept and classified. Maternal deaths should be divided into 3 groups: purely obstetric deaths; deaths from disease; deaths from abortion. Some cases require investigation, but such work should be postponed until the Commission is well established.

A few suggestions for improving obstetric conditions are here mentioned:

(1) Impress upon students the importance of the normal conditions and teach means by which things may be kept normal.

(2) Spend less time demonstrating operative procedures, except, possibly, in a special course for advanced students.

(3) Teach the diagnosis of complications which may arise, and the importance of calling for skilled assistance when abnormalities are found.

(4) No physician should undertake a maternity case unless he is sufficiently interested and capable of giving it his best attention. Too many cases are taken merely because the doctor hates to say "No".

(5) Every community should have its up-to-date maternity hospital, and every such hospital should be directed by an obstetrician who has the over-sight of all procedures, though not necessarily interfering with conduct of the case.

(6) Every community should have, or should make provision for, supplying pre-natal care to all applicants.

(7) Assistance should be cheerfully given by experienced obstetricians to all patients requiring advice. The early call for help, and the prompt response by an expert, will do much to improve results in maternity care.

(8) Education of the public along these lines should be provided everywhere.

It can thus be easily seen that there is plenty of work to be done and the results obtained will fully justify the effort. Here is an opportunity for New Jersey to be one of the leaders in this drive for better obstetrics. The best way to proceed is for each county to handle the work in its own district and to report its results to a central committee. The State Committee is anxious to assist in every way possible but conditions vary in dif-

ferent counties and each county will have its own special problems. It is hoped that next year's report may include specific reports from each county.

A. W. Bingham, Chairman.

PRELIMINARY REPORT OF COMMITTEE ON
LIFE, HEALTH AND ACCIDENT, AND
AUTOMOBILE INSURANCE

This report is for the year ending April 15, 1932, and covers the 2 kinds of insurance policy offered to our members; that on Health and Accident, of the Independence Indemnity Company, consolidated with the Commonwealth Casualty Company, in which name the policy was formerly issued and which still remains the Commonwealth Division of the merged companies.

HEALTH & ACCIDENT

The improvements made *last year* in the contract, have given increased advantages and greater satisfaction:

(1) One was extension of the period of indemnity for sickness to 6 weeks, instead of 4.

(2) A second was provision for covering total disability for work, even though the policy-holder be not strictly "house-confined".

Further progress has been made this year in the company's establishing a new State Agency to cover the whole state, thereby increasing means of contact by our members with the company. This agency is E. & W. Blanksteen, 76 Montgomery Street, Jersey City, and the efficiency of this arrangement is shown in the greater activity in visiting the county societies at their meetings, by request, (nearly all of which they have visited) and in the increase of new policy-holders in the 5 months since their appointment, November 15, 1931, as follows:

Camden County	5
Cumberland County	2
Essex County	7
Gloucester County	2
Hudson County	5
Hunterdon County	4
Mercer County	2
Middlesex County	4
Monmouth County	1
Passaic County	2
Salem County	1
Somerset County	4
Union County	2
Warren County	1
Total	42

Number of members now insured:

Ages—	under 50	91
	50 to 60	63
	over 60	49
Total		203

Number to whom benefits were paid 26

Amounts of these benefits:

Ages—	under 50	14	\$3232.13
	50 to 60	8	1096.43
	over 60	4	507.14
Total		26	\$4835.70

The amounts of these indemnities paid varied from \$25 to \$921.43, and the time from 1-19 weeks. Claims pending as incomplete 6

The settlement of claims by the company has always been fair, even liberal, and we believe all of the county societies, without exception, will attest to uniformly satisfactory service.

The work done to procure for our members, and to carry on, Group Insurance on Health & Accident, and the advantages of this particular policy, considering all its features of coverage and cost, we believe warrants the earnestness with which it is recommended and the zeal of the agents in presenting it to our members.

There has been no expense whatever to the society in advertising, circularizing, or conducting the office work necessary, but for the new year we shall need some letter-heads and envelopes, such as are supplied to other committees by the Secretary, and this we recommend.

Respectfully submitted,

Frank W. Pinneo, Chairman
J. Finley Bell
Austin H. Coleman
James S. Green
Fred J. Quigley
Clarence W. Way
Irving D. Williams
Chester I. Ulmer

Ex-officio { John F. Hagerty, President
J. B. Morrison, Secretary
Elias J. Marsh, Treasurer

COMMITTEE ON HONORARY MEMBERSHIP

The Committee on Honorary Membership, of the State Medical Society, respectfully reports that there have been no names submitted to our committee for election to Honorary Membership.

(Signed) William G. Schauffler
Ephraim R. Mulford
Thomas W. Harvey, Chairman

Preliminary Program

MEDICAL SOCIETY OF NEW JERSEY

The 166th Annual Meeting, Haddon Hall,
Atlantic City

June 15, 16, and 17, 1932

ANNOUNCEMENTS

Credentials and Certificates

The Committee on Credentials will meet at the hotel on Tuesday afternoon, June 14, and on Wednesday morning, June 15. Its office will be open constantly during the meeting.

The Constitution requires that all Fellows, Officers, Delegates, and Reporters shall register with this committee.

Delegates must present to this committee a certificate of election signed by the President and Secretary of their respective component societies. Without such certificate they cannot sit as members of the House of Delegates.

Each member of the Nominating Committee should present his certificate to the Secretary before the opening of the afternoon session so that the names of the Nominating Committee may be announced, as indicated on the program. The Nominating Committee will meet on Wednesday, June 15, at 5.30 p. m., in the Committee Room.

Papers and Reports

All papers read before the society or appearing by title on the program, whether read or not, thereby become the property of the society. The author of each paper is required to give the Secretary a legible copy of the same *before* reading. The expense of alterations in a paper after it is in type, and the cost of illustrations are borne by the author. All manuscripts should be *typewritten*, *double-spaced*, and on one side of the paper only. Excepting orations, addresses of special guests, and the Address of the President, the time to be occupied in the actual reading of a paper is *limited absolutely to 20 minutes*. Those who formally open the discussion of any paper are allowed 10 minutes each, others 5 minutes each.

Members volunteering to present papers or reports of cases must first have their papers accepted by the Committee on Scientific Work, and then apply to the Committee on Program for an assignment of time and place on the program.

Papers and reports not presented when called for by the President cannot be presented at a later time unless and until the regular order of business is completed.

All members of component societies who are in good standing are entitled to sit as associate members and have the privilege of discussing papers in the General and Section scientific sessions, but have no vote in, nor the right to take part in the discussions in, the House of Delegates.

On arising to discuss a paper, the speaker will please walk forward to platform and announce his name and address clearly for the benefit of the society. No member may speak a second time in any discussion.

All sessions will be opened promptly at the hour set, in order that the program may be carried out as planned.

The Board of Trustees will meet at the Haddon Hall Hotel, Tuesday, June 14, at 8 p. m.

Committees or Boards desiring meeting rooms will please notify the Committee on Arrangements, M. W. Reddan, Chairman, or W. D. Olmstead, Secretary.

Haddon Hall is operated on both—the American and the European—plans. The following rates are available to our members, guests and exhibitors.

	Price per day	
	American Plan	European Plan
Room with bath, 1 person . . .	\$8-\$10	\$4- \$6
Room with bath, 2 persons . . .	\$14-\$20	\$6-\$12
Room, running water, 1 person . . .	\$6 (Chalfonte only)	
Room, running water, 2 persons . . .	\$10 (Chalfonte only)	

Exhibits

Exhibits of instruments, books, pharmaceutical preparations, x-ray apparatus, etc., will be shown in the Exhibit Hall of the hotel, and members are urged to avail themselves of this opportunity to examine the very latest improvements in these various departments. Open 9.30 a. m. to 6 p. m.

The degree of interest shown by the visitors in these exhibits mathematically increases or decreases the revenue to the society.

We are presenting this year a very pretentious scientific exhibit, under the direction of Dr. Harrison S. Martland. A great deal of time and attention has been given to planning this scientific exhibit and we feel that everyone attending the meeting will find it both interesting and instruc-

tive. The exhibits will be located in the Mandarin Room, on the thirteenth, or Convention, floor of Haddon Hall.

HOUSE OF DELEGATES

Wednesday, June 15, 1932, 10.30 A. M.

Call to Order.
 Report of Committee on Credentials.
 Reading of Minutes of 1931 Meeting.
 Report of Committee on Arrangements and Program.
 Report of Committee on Scientific Work.
 Report of Committee on Revision of Constitution and By-Laws.
 Report of Secretary.
 Report of Editor and Executive Secretary.
 Report of Field Secretary.
 Report of Board of Trustees.
 Report of Welfare Committee.
 Report of Judicial Council.
 Report of Treasurer.
 Report of Committee on Finance and Budget.
 Report of Committee on Publication.
 Report of Committee on Honorary Membership.
 Report of Committee on Hospitals and Medical Education.
 Report of Committee on Post-Graduate Instruction.
 Report of Committee on Indemnity Insurance.
 Report of Committee on Group Health and Accident Insurance.
 Report of Committee on Workmen's Compensation Law.
 Report of Committee on Maternal Welfare.
 Report of Committee on Child Hygiene and Health Laws.
 Report of Committee on School Physicians' Conference.
 Report of Committee on Investigation of "State Medicine".
 Report of Delegates to American Medical Association.
 Report of State Board of Medical Examiners.

Afternoon Session

Wednesday, June 15, at 2.30 P. M.

- (1) Unfinished Business.
- (2) New Business.

GENERAL SESSIONS

Program of Scientific Work

Thursday, June 16, 10.30 A. M.

- (1) Functional Indigestion
 W. Blair Stewart, Atlantic City

Synopsis: A full history. Hygienic considerations. Nasopharynx and teeth. Diet. Parasites. Psychoneurotic cases. Mechanical methods of diagnosis and treatment. Rest cure. Some general considerations.

Discussion opened by D. Ward Scanlan, Atlantic City and Harold S. Davidson, Atlantic City.

- (2) Management of Peptic Ulcer.

Thomas K. Lewis, Camden

Author's Abstract: In the management of peptic ulcer patients, the inadequacy of both medical and surgical treatment should be frankly recog-

nized; recurring and chronic cases comprising a high percentage of the total number treated. Of all treatments, that advocated by Sippy, in conjunction with suitable management of the neurogenic element, yields the most satisfactory results. There are a number of reasons for poor results with this treatment in many of our cases, such as: lack of coöperation; failure to control the nervous factor; insufficient alkalinization; production of alkalosis; failure to restrict use of alcoholics. Surgical intervention should be limited to the treatment of complications.

Discussion opened by R. L. Sharp, Camden

- (3) Pathogenesis and Repair of Gastric Ulcer.

Lewis Gregory Cole, New York

- (4) Surgical Management of Gastric and Duodenal Ulcer

Edgar Burke, Jersey City

Abstract: This presentation avoids, so far as possible, a theoretic discussion of the subject. It is introduced by a brief exposition of the fundamental principles on which the Surgical Service of this Institution bases its therapy. There follows a report of some 200 cases of the type under discussion, those patients having been operated upon by the author within the past 6 years. Statistics are quoted, and emphasis is placed upon the end-results, particularly as regards the failures. There are paragraphs devoted to operative technic and to postoperative management of the individual patient. The paper is concluded by abstracts of unusual case histories and unusual pathologic findings. Free use is made of x-ray plates and colored, original illustrations.

Discussion opened by B. Ranson, Maplewood, and Milt A. Shangle, Elizabeth.

Thursday, June 16, at 2.30 P. M.

- (1) Recent Advances in General Surgery

George Blackburne, Newark

Synopsis: General considerations. Large margin of safety in present day surgery. Pre-operative and postoperative care. Operating room technic. Consideration of anesthetics. Treatment of infection and gangrene. Amputations. Plastic surgery and skin grafting. Malignant tumors. Fractures. Surgery: bone and joint; head and spinal; thoracic; abdominal; thyroid. Burns. Surgery of diabetics.

Discussion opened by George N. J. Sommer, Trenton.

- (2) Diagnosis and Treatment of Thyroid Disorders

Leslie E. Myatt, Bridgeton

Synopsis: Classification. Diagnosis. Treatment.

Discussion opened by Hyman I. Goldstein, Camden.

- (3) Treatment of Simple Fractures

John S. Irvin, Atlantic City

Synopsis: Importance of early treatment, including preliminary immobilization for prevention of shock and earliest possible reduction. Fractures should be looked upon as emergencies. Methods of reduction: Manipulations; open reduction and when it should be done; continued traction—skin

or skeletal. Methods of immobilization: Circular plaster and the importance of repeated x-ray examinations to detect slipping of fragments within plaster. Molded plaster splints have advantages for certain fractures. Metal and wood splints. Traction-suspension, including a new splint for the treatment of oblique fractures of tibia and fibula with over-riding. Early physiotherapy. Lantern slide demonstration.

Discussion opened by James H. Mason, 3rd, Atlantic City.

(4) Treatment of Compound Fractures by the Closed Cast method

Irvin E. Deibert, Camden

Synopsis: Report of 75 patients treated by this method. Comparison of this and other methods will be made, attempting to show the advantages and disadvantages of each method. Lantern slides to be shown.

Discussion opened by Damon Pfeifer, Philadelphia.

Friday, June 17, at 10 A. M.

(1) Medical and Surgical Problems of the Larynx and Hypopharynx

H. B. Orton, Newark

Synopsis: Anatomic and physiologic knowledge of area involved, and control of infections. The pathology, early diagnosis and treatment of Cancer of the Laryngopharynx, showing plaster casts of the various operations. The diagnosis and treatment of perforation of the cervical esophagus and the pharyngeal pouch. Lantern slides.

Discussion opened by Louis H. Clerf, Philadelphia, and Richard D. Freeman, South Orange.

(2) Lung Complications Following Medical and Surgical Procedures in the Upper Respiratory Tract

B. S. Pollak, Secaucus

Discussion opened by A. E. Jaffin, Jersey City.

(3) Medical and Surgical Treatment of Lung Complications Following Medical and Surgical Procedures of the Upper Respiratory Tract

Richard H. Dieffenbach, Newark

Abstract: Treatment resolves itself into that of 4 main complications: lung abscess; bronchiectasis; gangrene of the lung; and postoperative atelectasis (massive collapse). General principles of treatment applicable to lung abscess and bronchiectasis. Lung abscess: Medical treatment is supportive, symptomatic and vaccinal. Salvarsan. Postural drainage. Surgical treatment: bronchoscopic drainage; phrenectomy; pneumothorax; drainage; cautery excision; lobectomy. Bronchiectasis: Medical treatment is supportive, climatic, symptomatic, and by vaccine and salvarsan. Surgical treatment: Phrenectomy; pneumothorax; bronchoscopic drainage; bronchostomy; cautery excision; lobectomy; thoracoplasty. Gangrene: Medical therapy is supportive and transfusion. Surgical treatment: Postoperative atelectasis (mas-

sive collapse). Preventive measures. Inhalations. Bronchoscopy.

Discussion opened by Samuel B. English, Glen Gardner.

Friday, June 17, at 12 o'clock, noon

The President's Address

Friday, June 17, at 2 P. M.

Election of Officers. No other business.

(1) Simple Method of Pelvimetry by Roentgenology

J. Harris Underwood, and
E. E. Downs, Woodbury

Synopsis: Advantages of exact measurements of pelvic inlet; description of apparatus for taking measurements; method of estimating measurements.

(2) Cervical Infections

Thomas B. Lee, Camden

Synopsis: Prevalence in childhood. As a cause of sterility. As chief cause of leukorrhea. Relation to labor and abortion. Importance as to focal infection. Prophylaxis. Treatment.

Discussion opened by P. Brooke Bland, Philadelphia, and Thad. L. Montgomery, Philadelphia.

(3) Treatment of Eclampsia

S. A. Cosgrove, Jersey City

Synopsis: Brief review of the concepts of causation and their relation to clinical manifestations. Various schemes and details of treatment; extent of their application; critical comparisons; outline of personal practice; and review of results. Lantern slides.

Discussion opened by James F. Norton, Jersey City.

(4) Cesarean Section a Positive Factor in Maternal Mortality

J. Carlisle Brown, Atlantic City

Synopsis: A review of some statistics, with observations, and a plea for more careful obstetrics.

Discussion opened by A. B. Davis, Camden.

SECTION OF SCHOOL PHYSICIANS

Thursday, June 16, at 10 A. M.

Chairman: Dr. Allen G. Ireland, Trenton

(1) Problem of the Common Cold in School
Julia C. Mutchler, Parsippany-Troy Hills Township

(2) Tuberculosis Among School Children

B. S. Pollak, Secaucus

(3) Responsibility of County Medical Society to Schools and School Physicians

Spencer T. Snedecor, Hackensack
General Discussion

Thursday, June 16, at 2.30 P. M.

Chairman: Dr. William G. Schauffler, Princeton

(1) A School Health Program for the Physician

Allen G. Ireland, Trenton

(This presentation will be an interpretation of the School Physicians' program now being printed for distribution in September. It is the special program that was approved by the School Health Program Committee of this Society, of which George J. Holmes was Chairman.)

General Discussion**Friday, June 17, at 10 A. M.**

Chairman: Allen G. Ireland, Trenton

(1) The Heart in Physical Education.

Mabel G. Leshner, Camden

(2) Keeping the School Open When Poliomyelitis Is EpidemicJoseph Schapiro, Union City
Discussion**Friday, June 17, at 2.30 P. M.**

Joint Session with Section of Pediatrics

SECTION ON OPHTHALMOLOGY, OTOTOLOGY AND RHINOLARYNGOLOGY

Chairman: H. L. Harley, Atlantic City

Thursday, June 16, at 9.30 A. M.**(1) Management of Running Ears**

George W. Mackenzie, Philadelphia

Abstract: The first consideration is diagnosis, and in using the word *diagnosis* here, let it be understood to include a comprehensive knowledge of the exact changes which have taken place in the eustachian tube, middle-ear cavity and its adnexa, including the attic, antrum and mastoid; also, whether the predisposing factors in the nose or nasopharynx still exist or not; and, too, the effects of any existing dyscrasias as a hindrance factor to spontaneous recovery. For it is only by an exact knowledge of all these factors that we are able to single out those which are at fault in any particular case, and to correct it before attempting any treatment—conservative or radical.

Discussion opened by Charles S. McGivern, Atlantic City

(2) Chronic Suppurative Otitis Media

Edward A. Atwood, Paterson

Abstract: Conservative treatment and management, with a review of present day therapeutic methods. Anatomy and pathology will be discussed only as a basis for treatment.

(3) Some Problems Arising in the Modified and Radical Mastoid Operations (Lantern slides)

Charles W. Buvinger, East Orange

Abstract: Causes of impaired hearing. Causes of not securing a dry ear. The hearing problem.

Discussion opened by Charles Franklin Adams, Trenton

(4) Intracranial Complication Following Trauma to the Nasal Sinuses and Temporal Bone (Lantern slides)

Richard D. Swain, Newark

Abstract: Fracture Involving Nasal Sinuses: Types. Direction and course. Effect on (a) cranial nerves, and, (b) orbital contents.

Fracture Involving Temporal Bone: Types. Direction and course. Effect on (a) cranial nerves, and (b) middle ear, or (c) labyrinth.

Discussion opened by Charles D. Sinkinson, Atlantic City

Thursday, June 16, at 2.30 P. M.**(1) Meningitis from the Ear and Nose**

Wells P. Eagleton, Newark

Abstract: Two types of meningitis. One produced by direct extension from the infected primary focus in the nose or ear which travels outward through the subarachnoid space. This is curable surgically. The second type is secondary to a phlebitis of the vessels of the arachnoid. It is nonsurgical and is always associated with a positive blood culture. Compression secondary to encephalitis; the result of infection of Rosenthal's vein. Sphenoid sinus the cause of all cases of Type III pneumococcal meningitis—the old *Streptococcus mucosa*. Embolic otitis, a frequent secondary manifestation; an unrecognized thrombophlebitis of the sphenoidal sinus. Operative treatment of subarachnoid meningitis. Report of the first case in literature of pneumococcal meningitis cured by operating on the sphenoid with opening of the mastoid, combined with serum treatment.

(2) Plastic Surgery of the Nose (Lantern slides)

Lyndon A. Peer, Newark

Abstract: General principles which apply to all plastic operations on the nose. Division of nasal deformities into 2 classes: Normal elements present, but out of position. Acute fracture; treatment when seen in first 4 days. Hump nose. Lateral displacement of the bony ridge. Lateral displacement of the lower nose. Saddle nose.

Repair when some elements are absent: Deep saddle nose. Deep saddle nose with loss of lining (syphilitic nose). Loss of external tissues of the nose.

Discussion opened by Henry C. Barkhorn, Newark

(3) Diathermy in Treatment of Chronic Deafness; a New Technic

D. M. Yazujian, Trenton

Abstract: Advanced catarrhal deafness a baffling disease for otologists. The rôle of heat in spastic conditions. Principles of diathermy. Methods of application to the ear. Author's technic. Case reports. Demonstration of technic.

Discussion opened by William Martin, Atlantic City

Friday, June 17, at 9.30 A. M.**(1) Industrial Eye Injuries and Compensation Claims Arising Therefrom**

Elbert S. Sherman, Newark

Abstract: Review and comments on methods

adopted by this Society for computing percentage of permanent disability. Importance, at first visit, of routine examination; history of previous injury or disease; record of pathologic changes and of preëxisting conditions. Reasons why examiners differ in estimates.

Discussion opened by Wallace Pyle, Jersey City
(2) Retrobulbar Neuritis from Acute Posterior Ethmoidal Infection: Cured by Operation? With Report of 2 Cases (Lantern slides)

James A. Fisher and R. Winfield Baeseman, Asbury Park

Abstract: That this disease may be caused by posterior ethmoidal or by sphenoidal infection has been disputed. The literature reports cases explainable in no other way. Intimate anatomic relationships suggest infection by direct extension. The blood supply, the venous and possibly the lymphatic drainage, suggest infection by these routes. This paper not intended to enumerate all causes of disease, but to call attention to what we believe to be proved cases.

Discussion opened by Samuel T. Hubbard, Hackensack

(3) Exophthalmos and Its Relation to Neoplasm and Accessory Sinus Disease (Lantern slides)

Willard G. Mengel, Camden

Abstract: Brief discussion of etiology and diagnosis. Special reference to its relationship to diseases of the accessory sinuses and to orbital neoplasms; with report of several cases.

Friday, June 16, at 2.30 P. M.

(1) Pathology of the Living Human Eye and Its Clinical Recording by Color Photography
Lecture with lantern slides

Laurance D. Redway, Ossining, N. Y.

Discussion opened by Linn Emerson, East Orange

(2) Further Study of Posterior Lenticonus

Elias J. Marsh, Paterson

Abstract: Review of cases and articles since writer's paper in Arch. Ophthal. 57:128, March, 1927. Need of better definition and classification. Discrepancy between clinically observed cases and those studied anatomically. Critical analysis of certain theories of origin, with suggestion in reference thereto.

(3) Extracapsular Cataract Operation

J. S. Shipman, Camden

Abstract: Report of 100 operations by this method, with results and complications, which writer thinks justifies its continuance rather than a change to the intracapsular method which has not yet had sufficient of the "test of time".

Discussion opened by William K. Campbell, Long Branch

SECTION OF PEDIATRICS

Thursday, June 16, at 10 A. M.

Chairman: Stanley Nichols, Asbury Park
Symposium on Acute Poliomyelitis

(1) What We Have Learned About Etiology,

Diagnosis, and Clinical Course of Poliomyelitis, from the Neurologic Point of View

C. C. Beling, Newark

(2) Diagnosis, Course, and Treatment in the Acute Stage of Poliomyelitis as Seen by the Pediatrician

L. Charles Rosenberg, Newark

(3) Physiotherapy: Use of Respirators and Orthopedic Apparatus in the Treatment of Poliomyelitis

B. F. Buzby, Camden

(4) Relation of Frequent Colds to Accessory Sinus Diseases in Children (Illustrated by lantern slides)

Charles Gilmore Kerley, New York City

Discussion to be opened by William J. Greenfield, Hackensack

Thursday, June 16, at 2.30 P. M.

(1) Nirvanol Treatment of Chorea (Illustrated with moving pictures)

Roger S. Dennett, New York City

(2) Jaundice in Infancy

Walter B. Stewart, Atlantic City

(3) Recent Advances in Treatment of Some Diseases of Children

Hyman I. Goldstein, Camden

(4) Use of Sugars in Infant Feeding

David P. Evans, East Orange

Discussion to be opened by A. W. Bingham, East Orange

Friday, June 17, at 10 A. M.

(1) Allergic Diseases in Children

Samuel Blaugrund, Trenton

(2) Cerebral Hemorrhage of the New-Born

Louis Robbin, Newark

(3) Diagnosis of Tuberculosis in Infancy and Childhood (Illustrated with lantern slides)

Murray H. Bass, New York City

(4) The Child Who Will Not Eat

Saunders A. Levinsohn, Paterson

Friday, June 17, at 2.30 P. M.

Symposium on Community Child Health Problems
Joint Session of Section of School Physicians and Pediatric Section

(1) Negro Infant Mortality Rate and What the Well Baby Clinics Are Doing to Lower It

Clarence S. Janifer, Newark

(2) Infant Mortality in the First Month and How to Reduce It

Julius Levy, Newark

(3) Rôle of New Jersey Physicians in the Community Health Program

LeRoy A. Wilkes, New York City

Discussion

Louis A. Schroeder, New York City

Joseph H. Marcus, Atlantic City

Frank C. Johnson, New Brunswick

Julius Levy, Newark

Allen G. Ireland, Trenton

General—by members and Guests

SECTION OF RADIOLOGY

Chairman: William G. Herrman

Thursday, June 16

There will be no meeting of the Radiologic Section on Thursday morning, because so many of the men interested in radiology will wish to attend the General Session and listen to the Symposium on Gastric Ulcer.

Thursday, June 16, at 2.30 P. M.

The Pathogenesis and Repair of Gastric Ulcer

Lewis Gregory Cole, New York City

Elaboration and further presentation of roentgenologic and pathologic material in support of his conception of this condition.

The entire afternoon session will be given over to Dr. Cole to present some of his wealth of interesting and instructive material.

Friday, June 17, at 9 A. M.

(1) Mesenchymoma, with Presentation of Cases

William Klein, New Brunswick

(2) Acute Silicosis

R. Pomeranz, Newark

Abstract: Explanation of the term *acute silicosis*. Fate of the inhaled dust under normal and under abnormal physiologic conditions, with reference to a recently observed series of cases exposed to a dust of high free-silica content. Summary of x-ray and microscopic findings explaining the dangers and progressiveness of the condition. Differential diagnosis from other disseminated pulmonary affections. Conclusions and suggestions.

Discussion opened by Harrison S. Martland, Newark, and Henry B. Kessler, Newark.

(3) A Case of Congenital Atresia of the Esophagus with Tracheo-Esophageal fistula

George S. Reitter, East Orange

Abstract: Report of a case and résumé of the literature. About 234 cases have been reported.

(4) Radiographic Technic

C. F. Baker, Newark

Abstract: Definition of a perfect roentgenogram. Qualities necessary to produce same. Devices and methods used in attainment. Scientific juggling of the exposure. Regional technic. The card index as an aid to daily reproduction of good films.

(5) Bone Metastases in Breast Cancer

E. E. Downs, Woodbury, and Philadelphia

Abstract: Includes a report of 105 cases of breast cancer which have been under observation at the Jeanes Hospital, Philadelphia. Particular reference is made to the incidence of bone metastases in these patients; the relative frequency of involvement in the various bones; and the histologic analysis of the primary neoplasms.

Friday, June 17, at 2 P. M.

(1) Radiotherapy of Thyrotoxicosis

Ernest A. May, Newark

Abstract: The author offers a report on the radiotherapy of 160 patients. His results are sub-

stantially in harmony with collective statistics of Menville, on 10,541 patients in North America. It is to be hoped that this further report will help to convince the profession that radiotherapy is at least equal in value to any other accepted method of treatment.

(2) Carcinoma of the Uterine Cervix; Management and Treatment with Radium, Roentgen Rays, and Electric Surgery

J. Thompson Stevens, Montclair

Abstract: Considerable clinical data, including the practical classification used for the study and treatment of malignant disease of the cervix. The pathologic types encountered are enumerated, together with the site of the primary lesions of the various types and the pathology of each is reviewed. The method of eradicating infections associated with malignancies of the uterine cervix is outlined. The plan of management and the treatment with radium, roentgenotherapy, and electrothermic surgery are described at some length. Clinical conditions following preliminary Roentgen irradiation are described. Prognosis and results.

(3) Radiotherapy in the Treatment of Bone Tumors

Milton Friedman, Newark

Abstract: Histologic significance of the constituent cell of the various types of bone tumors, with reference to their radiosensitivity. Rapidity of response of various tumors. Early indications of failure. Prognosis. Lantern slides showing effect of radium on bone tumors.

(4) Collapse Therapy in Pulmonary Tuberculosis

Samuel B. English, Glen Gardner

Abstract: This type of treatment in many cases cuts short institutional residence and brings about disappearance of tubercle bacilli much quicker than many other procedures.

PROGRAM OF THE FIFTH ANNUAL MEETING OF THE WOMAN'S AUXILIARY TO THE MEDICAL SOCIETY OF NEW JERSEY

Wednesday, June 15, at 2.30 P. M.

Executive Board Meeting Garden Room

Wednesday Evening, June 15

See Entertainment Program

Thursday, June 16, at 9.30 A. M.

General Session Garden Room

Call to order by President Mrs. H. Roy Van Ness
Minutes of last meeting, Mrs. William Campbell,
Recording Secretary

Financial Statement Mrs. E. W. Clarke, Treasurer

Report of Standing Committees

Report of Committee on Revision of Constitution

Report of Delegates to Woman's Auxiliary to the
American Medical Association

Reports of County Auxiliary Presidents (alphabetically)

President's Report Mrs. H. Roy Van Ness

Report of Nominating Committee, Mrs. H. V. Hubbard, Chairman

Unfinished Business

Election of Officers

Installation of Officers

Program for the Year, Mrs. Charles Franklin Adams, President-Elect

Appointing Chairmen of Committees

Thursday, June 16, at 2.30 P. M.

Bridge Party and Tea. (See Entertainments.)

Thursday, June 16, at 7.30 P. M.

Dinner Dance. (See Entertainment Program.)

Friday, June 17, at 10 A. M.

Executive Board Meeting Garden Room

Friday, June 17, at 1 P. M.

Auxiliary Luncheon (subscription) .. Rutland Room
Physicians and members of their families
are invited to attend.

Guests of Honor and Speakers:

Mrs. Walter Jackson Freeman

Dr. John F. Hagerty

Dr. Paul M. Mecray

Mrs. Charles F. Adams

Mrs. H. Roy Van Ness

**Officers of the Woman's Auxiliary to the Medical
Society of New Jersey**

President, Mrs. H. Roy Van Ness, 218 Mt. Prospect Avenue, Newark

President-Elect, Mrs. Charles Franklin Adams, 34 State Street, Trenton

Recording Secretary, Mrs. William K. Campbell, 96 Third Avenue, Long Branch

Treasurer, Mrs. Edward W. Clarke, 435 Warwick Avenue, West Englewood

Corresponding Secretary, Mrs. George A. Rogers, 72 Pine Grove Terrace, Newark

First Vice-President, Mrs. Luther Hartman, Maple Shade

Second Vice-President, Mrs. John F. Hagerty, 590 Clifton Avenue, Newark

Third Vice-President, Mrs. Andrew F. McBride, 655 Broadway, Paterson

Directors

Mrs. Warren J. Duckett, 21 Carlton Avenue, Jersey City

Mrs. Fred A. Kinch, 267 E. Broad Street, Westfield

Mrs. William Freile, 2600 Boulevard, Jersey City
Mrs. Henry B. Diverty, Woodbury

Mrs. George N. J. Sommer, 120 W. State Street, Trenton

Mrs. Joseph R. Morrow, Bergen Pines, Ridgewood

Advisory

Mrs. A. Haines Lippincott, 406 Cooper Street, Camden

Mrs. George L. Orton, 98 Elm Avenue, Rahway

Mrs. James Hunter, 104 Station Avenue, Westville

Mrs. John Nevin, 117 Kensington Avenue, Jersey City

Chairmen of Committees

Press and Publicity, Mrs. George Culver, 25 Glenwood Avenue, Jersey City

Hygeia, Mrs. H. V. Hubbard, 117 E. Seventh Street, Plainfield

Program, Mrs. William Neer, 245 Broadway, Paterson

Entertainment, Mrs. O. W. Saunders, 1700 Broadway, Camden

Credentials and Registration, Mrs. Maurice Chesler, Connecticut and Pacific Avenues, Atlantic City

Legislature, Mrs. M. W. Newcomb, Brown's Mills

Health and Education, Mrs. F. A. Kinch, 267 E. Broad Street, Westfield

Public Relation, Mrs. A. J. Casselman, 301 Second Street, Camden

GENERAL ENTERTAINMENT

Wednesday evening, June 15, has been purposely left open, in order that the members may be free to do what they please.

Thursday, June 16, at 2.30 p. m., a Bridge Party and Tea, for the members of the Woman's Auxiliary and their guests, under the direction of Mrs. James H. Mason and a Committee of the Atlantic County Auxiliary.

Thursday, June 16, at 7.30 p. m., a Dinner Dance, in Rutland Room; Special Motion Pictures and a talk by Dr. Francis Carter Wood; and an Entertaining Talk by Dr. John Davis, a speaker with a national reputation. Everyone is urged to attend. Make reservations at the registration desk.

Friday, June 17, at 1 p. m., in Rutland Room: Woman's Auxiliary Luncheon; which event physicians and members of their families are invited to attend. (Tickets by subscription.) Guest of Honor—Mrs. Walter Jackson Freeman. Speakers, in addition to Mrs. Freeman, will be: Dr. John F. Hagerty, Dr. Paul M. Mecray, Mrs. Charles F. Adams, Mrs. H. Roy Van Ness.

Coupon books will be issued to the ladies, as heretofore, entitling them to rolling chair rides.

The Committee on Program and Arrangements will be pleased to arrange for sailing parties, sight-seeing trips, and golf privileges at nearby country clubs, for persons desiring such diversions. See Dr. W. D. Olmstead, at the Registration Desk.

Medical Ethics

WHAT IS GREED?

John Hammond Bradshaw, M.D., F.A.C.S.,
Orange, N. J.

Nobody can be accused of greed when he is simply looking after his own welfare. Self-interest and self-preservation go hand in hand. It is when this self-interest invades the rights of others, and becomes provocative, that it is viewed as being reprehensible. The urge of the appetites is inseparable from members of the animal kingdom; for it is an instinct of self-preservation. It cannot be done away with; for without it, we become weak, and to become weak is to be inefficient and despised.

The word *appetite* is generally used rather carelessly, but the intent of this writing comprises our intellectual and spiritual cravings as well as those inherent to the body itself.

The love of money is often given a precedence it does not always deserve. But few will deny that, in the world at large, this is such a dominating factor that it may be devastating. Could we but eliminate the wild and unhealthy craze for and love of money, we would eliminate much of the crime and much of the misery in this world. The paradox here lies in the fact that the desire for money is usually actuated by the desire for happiness! When the urge for acquisition of great wealth becomes overpowering, it becomes most destructive.

Those who have the fire of ambition propelling and energizing their every act, often find out, too late, how destructive even a virtue can become. At the same time, we know that without ambition one seldom emerges from the herd. If you have a greedy ambition, you are driven to excel; and with health and time, you are likely to *arrive*. But the money you now get may only be a "by-product", and the earned money may come when you are worn out or nearing the end of life; this being the "little joker" that is "stacked" among the cards.

The writer once asked one of the most prosperous physicians in the state—what, in life, gave him the most satisfaction? This, was his reply—"Getting the *drop* on the other fellow!" Shall we call this—greed?

Economics

COST OF MEDICAL SERVICE SEEN AS A PROBLEM FOR AN ORGANIZED PROFESSION TO SOLVE

Ray Lyman Wilbur, M.D.,

Secretary of the Department of the Interior, in President Hoover's Cabinet; ex-President of the American Medical Association; President of Stanford University; and, Chairman of the National Committee on the Costs of Medical Care, Washington, D. C.

In an address on the Cost of Medical Care before representatives of the Milbank Memorial Fund, in New York, on March 17, 1932, Secretary Wilbur said:

"It is eminently fitting that a meeting devoted to the economics of public health and medical care should be held under the auspices of the Milbank Memorial Fund. Many of America's great *Foundations* have demonstrated a keen and unwavering interest in medical problems of one sort or another, but few of them, I believe, have been any more interested in the health of the people and, particularly, in the economic aspects of our present methods for preserving and safeguarding that health, than the Milbank Fund. Through its excellent department of research it is adding new knowledge to our present precious store, and it is criticizing and analyzing the progress of public health work to make sure that this work is directed toward important problems and rests on sound bases.

It was in considerable part through the timely and generous support of the Milbank Memorial Fund that the Committee on the Costs of Medical Care was able to start its 5 year program of research in an endeavor to formulate a plan for providing adequate, scientific medical service to all the people, rich and poor, at a cost which can be reasonably met by them in their respective stations in life. The Fund was quick to recognize the significance and the desirability of carrying forward the committee's program, and we of the committee have always felt we could obtain not only financial support, but also intelligent coöperation and valuable advice at 49 Wall Street. What is perhaps more important, we knew we didn't *have to* follow the advice given.

Tonight I wish to address you, not primarily as Chairman of the Committee on the Costs of Medical Care but, as a physician, fallen from grace, if you will, but a physician, nevertheless. Let me speculate a little about the future development of medicine and public health in the United States.

MEDICINE AND GOVERNMENT

To do so, we ought to review briefly the temper of the American people toward medical service, and the psychologic factors that play in any discussion for improving medical services. In any such discussion today, one of the first suggestions will be that the Federal Government should provide medical care to all citizens free of charge. It cannot be denied that in many other parts of the world this is the answer that has been given. Governments were originally organized to carry on war and expedite commerce. Education was for the favored few, and skilled medical care was a prerogative of the Crown. The rest of the populace found such consolation as it could in the ministrations of midwives, bone-setters, and barber-surgeons. With the expansion of economic well-being and the concomitant increase in power, however, there came a demand from below for more education and more medical service. Bismarck felt the force of this demand and, anxious to appease the populace so that he might win support on issues closer to his heart, he instituted a system of sickness insurance and made it compulsory for the lower income groups by government edict. Although it is true that the German government makes no financial contribution to the insurance, and probably does not supervise it any more closely than our American states supervise life insurance companies, nevertheless this action has had a profound psychologic effect both in Germany and in other countries in Europe. Most of them have now adopted some form of governmentally-supervised sickness insurance, voluntary in a few instances and compulsory in the rest, and the people now look to their central governments to protect them against the hazards of sickness.

AMERICA'S UNIQUE OPPORTUNITY

In the United States our history has been somewhat different. When the War for Independence was concluded the 13 isolated colonies found themselves faced with the task of forming a common government for peace time. Each colony was independent, sovereign and jealous of its own rights. So hostile to a strong central government had the colonies been that they had on many occasions seriously hampered the prosecution of the war, and only the genius of a relatively few brilliant and faithful men saved the struggle from utter collapse. When peace was secured, the colonies framed Articles of Confederation which left each state practically undisturbed in the exercise of its powers. With adoption of the Constitution, and its expansion by Chief

Justice Marshall, a far stronger central government was established; and there has ever since been a struggle between the forces of centralization and the forces favoring local home rule. The success of the North in the Civil War again strengthened the hand of the central government, and the subsequent rapid development of the country, with its growth of interstate activities has further increased its power.

In spite of the vast concentrations of power and authority now in Washington, and the growing and dangerous tendency of the people to turn to the Capitol for all necessary reforms, we have retained in America a healthy local responsibility and control over 2 important functions—education and medical service. In so far as these functions are supported by taxes, the funds are assessed, collected, and disbursed locally. With no central authority attempting to force uniformity of action on all parts of the country, we can try out a great variety of plans. If *state action* is necessary, we have 48 laboratories (or the equivalent thereof) in which to find out what action is most effective; and, in the event of *city or county action* being called for, we have several thousand 'experiment stations'. We have no tradition that impels us to consider health matters as a *federal concern*. We have no need of ever tying ourselves hard and fast to any one type of proposal."

Summarizing rapid progress made in the elimination or control of smallpox, yellow fever, typhoid fever, malaria, hookworm, diphtheria, and other diseases, and in the general advance of medicine, Secretary Wilbur continued: "Measured by what is possible, however, in the light of present medical knowledge and technology, much remains undone. 'We know infinitely more than we do.' Many of our people are untouched by the possibilities of preventive medicine. Some of them, we must admit, receive only second rate care when ill and others are entirely without scientific care. In a recent survey, 35% of the cases of illness, excluding colds and minor digestive disturbances, were not seen by a physician. Untrained, ignorant, and superstitious midwives bring nearly 15% of our future citizens into this world each year. Few of us enjoy the benefits of a complete annual physical examination. We have seen the tremendous growth in the number of dentists in our country and in the quality of the services which they render; yet from 80 to 90% of school children, on examination by dentists, are found to have carious teeth. Only 1/3 of the American people, if those in the state of Vermont and in San Joaquin County, California, are represen-

tative samples, receive any dental attention whatsoever during a year.

Some of our doctors are working today with the education acquired 30 years ago. They are antiques that need repolishing. Our facilities for post-graduate work are still inadequate. In view of the opportunities we possess for developing the highest type of post-graduate instruction, our present offerings seem feeble indeed. Even if they were adequate, however, we should have to find a method whereby the doctor could leave his practice for 1-6 months and, on his return, find it still waiting for him.

Among 4560 families who kept records of their total medical charges during a year, we found a wide range of charges per family. There were 1788 of those families whose total annual incomes for the year were under \$2000 per family; and 40% of those low-income families incurred medical costs for the entire family of less than \$25 for the year; 20% had charges from \$25 to \$50; 21% from \$50 to \$100; 14% \$100 to \$250; 4% \$250 to \$500; 1% \$500 to \$1000; and 0.2% \$1000 to \$2500. Then 81% of this group had bills of less than \$100 for the year, and, we may assume, could pay their medical charges without serious hardship, but the remaining 19% must impair living standards, draw on savings or borrow money, if they are to meet their expenses. The 81% paid only 36% of the total bill of the entire group, while the 19% were faced with 64% of the amount, making the average per family 8 times as high in the latter group.

No well-informed student of medical economics believes for a moment that the patient's difficulty in paying medical costs is primarily or basically due to excessive fees on the part of physicians and other practitioners. There are a few 'gougers' in medicine, of course, just as there are in all walks of life, but any impartial analysis of the incomes of physicians leads to the conclusion that in view of the time devoted to training and education, and the responsibilities assumed, there is no general over-payment of practitioners. Let me give you a few facts about professional incomes. The 79 practicing physicians in San Joaquin County, California, had an average net income in 1929, of \$5500; in Philadelphia, 245 representative physicians reported net incomes for 1929, with a median of \$3400; and, 30 physicians in Shelby County, Indiana, had a median income in 1928, of \$3100. Some unpublished data regarding physicians south of the Mason-Dixon line indicate that conditions in certain large areas of the South are such that large numbers of physicians received, in

1930, net incomes of less than \$1000. On the average, the general practitioners reporting have net incomes about $\frac{1}{2}$ as large as the specialists. Dentists in 20 states reported median net incomes, for 1929, of \$4000.

Most of these figures are for 1928 or 1929. In 1930, the incomes of physicians fell off appreciably, and last year and this year (1931-32), the situation is doubtless even worse; in fact, one of the most significant aspects of the practice of medicine in the United States is the financial precariousness and insecurity of the major portion of practitioners concerned.

We feel reasonably confident, when we say with Herman Biggs—*Public health is purchasable*. Our experience has been that if we perform certain tasks faithfully and conscientiously our mortality and morbidity rates will fall. But to the *individual*, we must be much more guarded in our promises. We may assure him that he can avoid diphtheria and smallpox, and probably typhoid fever and certain other diseases; we can point out the benefits of sane, wise living, of reasonable exercise, of adequate rest and of proper diet; we can suggest an annual physical examination; yet, although the individual may faithfully follow our advice, we cannot assure him that he will escape all expensive illness. For the *group*, we can predict, with a fair degree of certainty, the incidence, duration, and severity of the illnesses which its members will have; for the *individual*, definite prophesy is impossible.

In the light of such uncertainty, it is easy to discern the psychologic barrier to saving money in anticipation of an uncertain attack of illness which, if it comes, will cost an unpredictable sum of money. Even if a family does save, it has no way of assuring itself that the saving will be adequate.

In medicine, as our methods of measurement, of observation, and of treatment have grown in objectivity and precision, they have of necessity in many cases become more, rather than less, costly. The saddle-bag day of medicine has passed and the new era has brought us new problems. We cannot disregard modern methods. Although we all realize that complicated laboratory equipment is no substitute for the careful, thorough attention of a skilled mind; we also realize that if we are to practice medicine scientifically, if we are to do our best for each patient, we must have available many expensive tools and must utilize many procedures that were unknown to our grandfathers. *Good medicine today has to be more costly than the good medicine of even 25 years ago.*

If we organize our talent for producing

medical services economically and efficiently, we shall undoubtedly find that the cost is not too great for our present society. For inadequate medical services, produced with all the wastes inherent in individualized practice, we now pay about \$30 per capita annually. With organized, coördinated effort, we should be able to provide ample medical services, of good quality, to all the people, and with proper remuneration to the professional personnel, for costs of somewhere between \$20 and \$50 per capita per year.

Whatever the figure may be, *the real nub of the economic problem* is to determine whether the cost of good, comprehensive medical care is within the reach of our people. If all but the indigent can pay the price, we merely face the technical task of devising suitable methods for collecting the charges. On the other hand, if we find that there are substantial groups of our people who, though not indigent, nevertheless have so little surplus over the bare essentials of life that they cannot reasonably be expected to pay the cost of decent medical service, economically provided, then we face a different and somewhat more vexing problem. Our sympathy, our sense of fair play, and our desire for self-protection and self-preservation, all unite in demanding that we reject emphatically any suggestion that these people should be given an inferior service—a service that we cannot label *good in quality and reasonably adequate in quantity*. If we expect charity to meet the cost, we are faced with the fact that charity, when obviously labeled as such, is distasteful to self-respecting people and is too erratic and inadequate to meet such a large national problem. May we, in such cases, turn to the local, and perhaps the state, government and expect that it will meet a sufficient share of the cost to bring the charge to individual families within their reach? May we expect that local officials will agree that *protection of the people's health is as important*, and not nearly so costly, a social responsibility as *the education of their minds*? May we assume that methods can be worked out that will enable the local government to help carry the financial burden without placing the *morte main* of official red tape, or of politics, upon scientific progress and skilled service?

Today there are many trends in medical practice, some of which move along the lines we have been suggesting. In the first place, medicine is increasingly being regarded as a coöperative enterprise. More and more, physicians are practicing in hospitals, where they

not only have better facilities than they could provide as individuals, but where they have constant (and mutually helpful) contacts with professional colleagues. Clinics and dispensaries have increased prodigiously. Most of them are organized as charitable or semi-charitable institutions and restrict their clientèle in one way or another. The *advantages of group association*, however, are so patent that private group clinics are developing independent of any charitable tradition; a few of such private group clinics, moreover, are actually located in hospitals, and most of them are closely connected with one or more hospitals.

There is manifest an *increasing public feeling that the health of the community is a major concern of local and state governments*. In addition to the traditional services in connection with sanitation, communicable disease control, and vital statistics: departments of public health (in coöperation frequently with departments of education) are supervising the health of school children, even if necessary to the extent of correcting their physical defects; are operating maternal and infant welfare clinics; are providing tuberculosis clinics, sanatoriums and preventoriums; are offering laboratory services to private physicians; are giving dental treatment, particularly to children; and, are treating cases of venereal disease and of cancer."

After referring to organized student health services in 153 colleges and universities, and to the health service provided by many industrial concerns for their employees, Secretary Wilbur continued:

"The provision of medical care on a monthly fee or contract basis has been offered by a number of private group clinics. One clinic, in Los Angeles, has contracted with several employee groups (totaling about 7500 families) to provide practically complete medical service for \$2 per person per month. With the exception of dentistry and home nursing, practically all medical services are included. Baylor University Hospital, in Dallas, Texas, is selling a form of hospital insurance to school teachers and other groups for approximately 50 cents per month. In Grinnell, Iowa, the local hospital offers hospital insurance for \$8 per year. In Vermont, the Brattleboro Mutual Aid Association offers 2 types of insurance to citizens of that community; insured persons needing hospital surgery pay the first \$30 of their expenses and then are reimbursed for all expenses, including the surgeon's fee, thereafter up to a maximum of \$300. Pa-

tients needing nursing service, obtain it at 1/3 or 1/2 of the usual fee.

It would be easy to multiply instances of outstanding experiments, but the *important thing* is to realize that a tremendous ferment is working in our long established system of medical practice. Doctors and laymen, both, are reaching out in various directions—seeking methods of leveling the cost of medical service, and of providing a *better quality of care* than has previously been available. Where this evolution will take us, we know not. That it contains dangerous, as well as hopeful, possibilities is apparent.

In summary, then, I think we can agree that our present methods of providing and paying for medical service are unsatisfactory on 4 different grounds:

(1) One of the most important facts to recognize is that all the people do not obtain all the care which they really need, either quantitatively or qualitatively.

(2) The cost is unevenly distributed among the people, causing hardship to some while others pay little or nothing; and this unevenness is of such a character that families of moderate means, or of low incomes, cannot fully overcome its effects merely by individual family budgeting.

(3) The incomes of medical practitioners are frequently so uncertain, so irregular, and so low, as to constitute a grave problem—a problem with social as well as individual consequences.

(4) Our present methods of providing and paying for medical service are, from the social point of view, wasteful and uneconomic.

These problems will only be settled when and to the degree that physicians, dentists, public health officers, educators, industrialists, labor leaders, civic workers, hospital trustees and executives, and other persons in positions of authority and influence understand and accept their own individual responsibilities. If we can act with courage and vigor at the right moment, we will, I am convinced, be able to inaugurate various improved methods of providing medical care to the American people. We neither desire nor expect a mushroom growth, but we do wish to make available, as rapidly as possible, more adequate medical service to a larger number of our people. No other course of action holds greater promise of enriching American life and benefiting every phase of our national welfare."

In Lighter Vein

Motorists are asked to exercise extra caution when nearing schools. Remembering always that little boys should be seen and not hurt.—Punch (London).

Full of Surprises

"She is one of those worm-style motorists."

"What do you mean, worm-style?"

"A worm never gives any signal which way it will turn."—Boston Transcript.

Human Churn

"Good gracious, Junior, I forgot to shake the bottle before I gave you that medicine."

"Don't worry, mummy, I'll turn a few hand-springs."—Chicago News.

Bam!

Bog—"I got a real kick out of kissing Jane, last night."

Gog—"Any more than usual?"

Bog—"Yea, the old man caught me."—Witt.

Early Victorian

Our idea of a perfect love is a husband eating the spinach without a murmur because "her dear hands" had prepared it for him.—Cincinnati Enquirer.

Call the Town Crier

"Their engagement is still a secret."

"So everybody is saying."—Ghendai Mangwa (Tokyo).

Thalia's New Daughter

We are among those who have never despaired of the future of the stage, and now our faith is to be rewarded. Mrs. Legs Diamond is going to elevate it.—Buffalo Evening News.

If Taken in Time

A clergyman recently stated that marriage is a preventive of suicide. We don't know about that, but we can state positively that the second is a preventive of the first.—Boston Transcript.

So this is the civilization the doughboys died to save.—Beaumont Enterprise.

Why dread inflation, if it is the opposite of what we have now?—Nelson (B. C.) News.

A writer with a nifty choice of words speaks of the Soviet Five-Year Plan as "promising".—Springfield Union.

Another advantage of storing up treasure in heaven is that only one person's folly can lose it for you.—Roanoke World-News.

The problem confronting those putting up the political platforms is to make the flaws in the wood look like knot-holes to the dries and bung-holes to the wets.—Ohio State Journal.

Ask Mom, She Knows

There are three kinds of mules, the old gray, the white, and the kind your wife married.—Cincinnati Enquirer.

Public Relations

BAR GROUP ADVERTISING

(An editorial from N. Y. Times, Sunday, April 17, which is equally applicable to the medical profession.)

Into what recesses does not the intruding finger of "progress" poke? About 2 years ago, according to The Journal of the American Judicature Society, the bar began to be interested in that field delicately called "public relations". Hide-bound traditions keep the medical profession from "selling itself" to the public, but in a world of propaganda why should lawyers be shy to reveal their merits? As early as 1927, a California lawyer wrote an article in the State bar journal, on "Selling the Legal Profession", but his object was other than the title might seem to indicate. He urged lawyers to seek "the truth", to practice "self-criticism". A cruder or more practical spirit was manifested in the dawn of the new movement:

In some bar associations the first attention to the matter of public relations took the form of proposing appropriations to be used by advertising agents. There was a suspicion that the astute agents were instigators, hoping to open up a new field for earnings. And in some quarters enthusiasts appeared to aim at breaking down the canon which prevents individual lawyers from advertising.

(Exactly the opinion we expressed, some months ago, about the newspapers which were trying various means to entice or force medical societies to advertise.—Ed.)

In California, Louisiana, Massachusetts, Minnesota, Oregon and some other states, one of the main purposes of the bar associations was "to inform the public concerning the essential public function of the lawyer". That part of the public which is inclined to regard lawyers with doubt or latent hostility may not be too eager for this form of instruction, but needs to be convinced that the lawyers are performing their public function honestly; that they—some or many of them—don't resort to chicanery, depend on technicalities, fatten on delays. Apart from unethical conduct, much of the irritation against lawyers and courts comes from the working of antiquated procedure, civil and criminal. Notoriously, lawyer-legislators are slower than cold molasses about law reform.

According to a committee of the California State Bar, enlightenment of the public by addresses on the true function of the legal profession, and so on, "will result in a better understanding of the law on the part of the general public and a better understanding of our profession". Perhaps the layman is but feebly interested in addresses on the law. His understanding or misunderstanding of the legal profession rests upon experience and observation or on hearsay, rumor, legend—a continuous folk-legend, to put it mildly. A case or two of petti-foggery and shady conduct will count more, however, unjustly, against the run of lawyers than defenses, explanations, virtuous moral essays, spoken, written, radioed.

Another committee of the California bar reported unanimity on 2 primary points. The education of the public was second. The first, was the education of the lawyer "as to his responsibility to the public". The first duty is the more important.

But, however much bar associations may tighten their discipline, however instructive or suasive their orations *pro se* to the general, something of ill name lawyers must expect to bear so long as the administration of justice is not notably improved.

DENTAL ADVERTISING

(From Atlantic City Press, April 15.)

The State Dental Society announces a tentative plan of advertising—a radical departure from established custom, yet not so radical when it is remembered that even the medical profession—in a conservative and yet informative way—has realized the possibilities as well as the dignity of paid-for advertising compared with mere publicity, sometimes of the undesirable sort.

Up until now most of the dental advertising appears to have been left to the manufacturers of dentifrices, tooth brushes and the like—crumbs tossed in the direction of the dentist's chair, in return perhaps for a kind word said in behalf of Toothsome's Toothpaste. The arrangement can scarcely be said to be either dignified or otherwise satisfactory; under it, and under the general plan of professional silence, the dentist has come to be regarded as a last resort, and only in case of a toothache. Dentists, however, possess a great deal of information which, if passed on to the public—not in the form of testimonials which it has come to regard with suspicion, but through the medium of paid-for advertising in responsible newspapers—ought to react to the mutual benefit of both the public and the dentists.

People call in a doctor when they are sick, a lawyer when they get in trouble. One wonders whether preventive practice could not likewise be stimulated in these professions through educational campaigns of the sort the dentists propose. Nothing, certainly, could be more ethical, more sensible.

FOR MEDICAL FREEDOM

(Editorial in Philadelphia Public Ledger of April 10, very thoughtfully clipped and sent to us by Dr. Chester I. Ulmer, of Gibbstown.—Ed.)

Dr. Doran, Commissioner of Industrial Alcohol and former head of the prohibition-enforcement service, sensibly suggests removal of the Volstead Act provision limiting physicians to prescribing 1 pint of liquor for a patient in 10 days. This is not the full freedom for which the medical profession has been contending, since Dr. Doran would retain limitation of the total number of liquor prescriptions by each doctor and the quantity prescribed. But it is a move in the right direction.

It was certainly an anomalous proceeding when Congress undertook to dictate to physicians in such a detail of their practice as the amount of liquor to be administered to an individual patient in a given time. Granting that some supervision of liquor prescriptions should be exercised, there has been unwarrantable legislative interference with the principles underlying the freedom of scientific practitioners and the rights of those who seek medical advice and treatment. Fuller administrative and less legislative control, as Dr. Doran suggests, should amply take care of this matter of liquor prescriptions, which is obviously open to abuse by the unscrupulous.

ON PUBLIC HEALTH

(Editorial in N. Y. Evening Sun, April 7, concerning a matter we shall shortly set forth in greater detail, as the chief feature of the Tristate Conference in February.)

The report of the Governor's special commission on public health in New York State is a stylish volume. It demonstrates in a satisfactory manner the extent to which the art of making technical reports has advanced. No doubt its greater usefulness will be as a reference work on the numerous subjects touched upon by the specialists who were engaged in this work. At the same time it has attractions for any general reader who may wish to skip technical detail and get down to the essentials with which its studies deal.

Each of these studies supplies a separate chapter with recommendations of the experts grouped at the end. The Governor contributes an appropriate foreword. A considerable part of the book is taken up with plans for reorganizing and improving local machinery for promoting public health. In general the commission has outlined a statewide program for community action to reduce preventable death and disease and to afford improved service in return for taxpayers' money.

As the Chairman, Dr. Livingston Farrand, has observed there has long been a tendency in New York for communities to transfer to the state, responsibilities for public health that are local in character. The manifest intention of this report is to bring about a reversal of that policy. It argues with great force that the county is an ideal unit for the administration of health services, with the state contributing such assistance in finance and advice as it best can give.

School Health Department

THE PRINCIPLE OF CO-ORDINATION

Allen G. Ireland, M.D.,

Director of Physical and Health Education, State Department of Education, Trenton, N. J.

Coördination is essential to effectiveness. As used here, the word means coöperation, or team work, on the part of individuals and departments toward fulfillment of the purposes of this program. Where any sort of health program is attempted, a lack of coördination is usually found to be the outstanding weakness.

In application of the principle, each teacher and each department has a contribution to make and, in turn, each is to be benefited. No one in the school being without some responsibility. Examples of the principle being applied can be constructed as follows.

Through the physician, dentist, and nurse:

- (1) Assisting with classification of pupils, for physical education on a basis of needs.
- (2) Selecting physically-fit candidates for athletic teams.
- (3) Advising home economics department or lunch-room management, concerning malnourished pupils in need of special diets.
- (4) Suggesting suitable menus for the school lunch.
- (5) Advising teachers, concerning pupils who

have physical handicaps which, possibly, contribute to scholastic failure and behavior difficulties.

(6) Furnishing data, from health examinations, to use as a basis for arranging instructional courses.

(7) Assisting the Principal in establishing standards for building sanitation and class-room hygiene.

(8) Examining special cases referred by teachers.

Through the psychiatrist, psychologist, and visiting teacher.

(1) Classifying of pupils for homogeneous groupings.

(2) Consulting with the Principal regarding time schedule, pupil load, arrangement of subjects.

(3) Advising teachers regarding mental, nervous, or emotional handicaps which are, possibly, contributing toward scholastic failure and social maladjustment.

(4) Assisting with guidance programs.

(5) Testing, diagnosing conditions, and prescribing for referred pupils who need consideration.

(6) Conferring with parents and teachers concerning problem pupils.

(7) Assisting with the construction of courses and the selection of methods.

Through the Principal and Dean of Girls.

(1) Effecting coördination of departments and individuals by means of a "unified program" and Faculty Conferences.

(2) Transmitting reports and instructions of health specialists to faculty, custodians, cafeteria staff, and others.

(3) Using findings, of all tests and examinations, as aids to the interpretation of individual pupils and conditions.

(4) Effecting homogeneous groupings, time schedules, pupil programs; on the basis of health and psychologic data.

(5) Supervising social activities of pupils, with reference to health protection.

(6) Keeping health staff informed daily, about absences, reports of illness from homes, and through other pupils.

Through the Physical Education Department.

(1) Using health service reports as one criterion in grouping and work assignments.

(2) Coöperating with the health service in protecting the pupils' health, particularly among those especially active in athletics.

(3) Reporting cases of illness or accident.

(4) Enforcing the rules regarding personal health, among the pupils, and of sanitation in management of the gymnasium and shower and locker rooms.

(5) Conducting physical efficiency and other tests for the health staff.

Through the Home Economics Department.

(1) Providing special menus for those who are under-nourished or over-weight.

(2) Enforcing standards of hygiene and sanitation.

(3) Demanding health examinations of the staff of employees.

(4) Making the school lunch an educative matter in accord with the principles learned through instructional courses.

Communications

COOK COUNTY HOSPITAL SUMMER CLINICS

The regular Summer Clinics given by the Staff of Cook County Hospital, under auspices of the Chicago Medical Society, will be held during the weeks of June 6 to 18, inclusive. The usual \$10 registration fee will be charged to cover expense of organization.

Physicians desiring to enroll for the Post-Graduate Clinics should make application as soon as possible to the Secretary of the Cook County Summer Clinics, care of the Chicago Medical Society, 185 North Wabash Avenue, or to Dr. Philip H. Kreuscher, Cook County Hospital.

SOCIAL INSURANCE: MOST GOVERNMENTS INEFFICIENT OR CORRUPT— SOME ARE BOTH

Edward H. Ochsner, M.D.,
Chicago, Illinois

(This is the fourth in a series of communications, dealing with the genesis—in January Journal—and progress of social insurance.)

We come now to what is probably the weakest spot in the government—the judicial interpretation of the laws and their legal administration. Some of the worst features in the administration of criminal justice, in particular, in most of the states and sometimes even in the federal courts, result from countless postponements, hair-splitting technicalities, innumerable appeals, and numerous reversals, with the resultant delays and often miscarriage of justice. Volumes could be written on this subject alone, but one illustration of each method of delaying justice will have to suffice.

A known gunman has been indicted 6 times in the last 18 months. Every time he has been released on bonds he has become involved in new crimes. In spite of all this he was given 30 "continuances" on one indictment. Commenting on this, and many similar cases, Henry Barrett Chamberlin, Operating Director of the Chicago Crime Commission, recently made the following statement: "Repeated postponements in the trial of a criminal case is the most serious obstacle to obtaining a just verdict."

Following is an illustration of how *intense legalism* and the *glorification of technicalities*, so often *defeat justice*. The case is taken from the decision of the Illinois Supreme Court, Volume 258; a decision that was handed down many years ago, but which still stands. A girl, 11 years old, was dragged into a basement apartment and mistreated by a man 50 years old. He was found guilty, and sentenced to the penitentiary for 5 years. The Supreme Court reversed the sentence, not because of any doubt concerning the defendant's guilt but because *the child's first name* had been set forth, as *Rosetta* instead of *Rosalie*, in the indictment.

In most major criminal cases, in nearly all of the states of the Union, the convicted person has 3, sometimes even more, chances of appeal; and 1 or 2 chances of executive clemency. Each time, he has a chance to find a loop-hole and to make his escape, while society is denied an equal chance to protect itself.

Our laws have been so emasculated by mollicoddle

reformers that it is almost impossible to convict a criminal and keep him convicted, or to convict one or a group of men who maladminister government departments. A case in point: Between the years 1915 and 1919, 4 real estate experts were paid \$2,736,868 out of the city treasury. It was common knowledge that the payments were grossly excessive and that a good deal of this money ultimately found its way into the political fund of the administration, and yet, the Supreme Court reversed the verdict of the Circuit Court which had found the defendants guilty—because it claimed that the prosecution had not proved that any member of the administrative body had personally received any of the money. To the layman, the language of the Supreme Court seems to say that—if the administrative officer chooses to look in the other direction while the money is being stolen he cannot be held responsible. I do not presume to criticize the courts in these decisions; the fault may be in the laws. But no one will claim that all this spells governmental efficiency; and that is the point under discussion here. In this connection, I wish to quote a jurist who was known for his outstanding fearlessness and integrity, and for his profound knowledge of the law. He characterized the Municipal and Circuit Courts as—the Courts of Original Error; the Appellate Courts as—the Courts of Intermediate Speculation; and the Supreme Court as—the Court of Ultimate Conjecture.

While most of these illustrations have, naturally, been taken from Chicago and Illinois, similar instances in many other places prove that conditions are just as bad in other cities and states. We need but refer to the recent dismissal of 5 judges for gross inefficiency and corruption, in New York City, and to an address by Samuel Seabury to the Justices of the Appellate Division of the Supreme Court of New York, in which he said: "It is for you to say whether the Magistrates' Courts shall be turned into bargain-counters where justice is bought and sold, when political leaders are actually brokers, dealing in influence." In smaller governmental units the corruption and inefficiency are, of course, on a smaller scale, but in many instances they are present, just the same. One writer in a popular magazine sizes up the whole situation in the following words: "From Teapot Dome to our latest Municipal Court scandals, we have seen enough of political and public malfeasance to make us believe almost anything of our law-makers, courts and public guardians."

We have devoted this much space to discussion of governmental inefficiency because it is fundamental. If we have demonstrated that most governments are inefficient or corrupt, and that some are both, and that there is no likelihood of marked improvement in the immediate future, then we have proved that it would be unwise and unsafe to entrust so vital a function as the almost universal control of medical practice to governmental supervision and control. If one were to record all the evidence of inefficiency and corruption which occur in all the governmental units of this country, in 1 year alone, it would require volumes instead of a few short pages.

The purpose of these articles, however, is not so much to give detailed information as to arouse the allied professions of medicine and dentistry, and through them the general public, to the impending danger.

The next 2 articles will show how the quality of medical services deteriorates under Compulsory Health Insurance.

(To be continued.)

Woman's Auxiliary

THE QUESTIONS—WHO AND WHY

Mrs. J. Newton Hunsberger,
Norristown, Pa.

(Believing that parts of this Address are applicable to local conditions, and the time appropriate for presenting them, the Editor opens this Department of the Journal with the reprinting of Mrs. Hunsberger's Address, as President of the Woman's Auxiliary to the American Medical Association, to the Woman's Auxiliary to the Kentucky Medical Association, September 17, 1930, and as borrowed from the Kentucky Medical Journal of December 1930, pages 619-620.—Ed.).

We are a group of women having a mutual sympathy and friendship; each and every one having the same right of membership in this Auxiliary. It is a marital relationship. We do not have to delve into musty records to verify it for we are now the allies or reserve force of that great *army of life saving men*, who are fighting for one great and glorious purpose.

Our duties and opportunities are legion, though they are only now presenting themselves.

As the whole is made up of its component parts, so we, individually, must do conscientious work that our high standard may be maintained.

Most problems have many aspects and I take it our Auxiliary its a *two-sided* question with many physicians. We have been accepted by the majority but I am sorry to say, not by all. Some still fear we will throw something into the machinery that will cause disaster.

I say to you—let's take it as a challenge and prove to the members of the medical profession that we *are* and *are for a specific purpose* and we will in time make their vote unanimously for us.

AND How?

- (1) Organize for friendship's sake.
- (2) Organize for the sake of self-education.
- (3) Organize to educate the public.
- (4) Organize to PUSH every good work, authorized by the medical profession and recommended by them to the Auxiliary.

For, in organization there is real strength.

In a word, let us be organized and prepared, as the Red Cross was to answer when the call comes, for service.

"The human Will, that force unseen, the offspring of a deathless soul, can hew the way to any goal, though walls of granite intervene."

In organizing for friendship's sake the Auxiliary found "you for me".

We are different from other women's clubs. Most clubs are composed of women whose husbands come from many professions and trades. We are of one profession with a common interest.

Doctors' wives are usually so engrossed with household and office duties and responsibilities, that they have little or no time or opportunity to acquire the knowledge they are supposed to have, so that they may combat the assertions made by the misinformed sister they meet continually at card parties or afternoon teas.

With these problems in view, some of our able women have prepared abbreviated studies; which may be used as self-educators and for distribution also to advantage in Parent Teacher's organizations and other clubs.

Through these studies we hope to teach the importance of birth registration, diphtheria immunization, small-pox vaccination, the Dick test, pure foods, milk, and water supply, the plan of procedure to secure better housing conditions and sewage disposal.

Let us preach *preventive medicine* by having *our own periodic health examinations* and *our children of pre-school age ready to enter their first year physically fit*.

Auxiliary members can, by setting forth that which has been proved, render double service to the laity and to the medical profession. Free clinics conducted by unauthorized individuals are a menace to the profession.

Our own medical society should guide our activities in public health education.

We are justified in the belief that Hygeia was brought from its indebtedness to its present status through the help of the Auxiliary, and we should continue to laud it as a valuable asset to health education.

The Medical Benevolent Fund, if your state has one, should be our foster child. We cannot make better use of the money derived from a card party or some other benefit, than by adding it to that benevolence.

Let us work with and through clubs and organizations in which we hold membership to control the type of health talks arranged for their yearly programs.

Atlantic County

Reported by Mrs. Maurice Chesler

The April meeting of the Woman's Auxiliary to the Atlantic County Medical Society was held at the home of the President, Mrs. James H. Mason. Friday afternoon, April 8.

Mrs. Mason welcomed Mrs. O. W. Saunders, as a guest from the Camden County Auxiliary.

Final arrangements were made for the "Annual Luncheon and Bridge" to be given at the Claridge Hotel, on Wednesday, May 4.

Following the business session bridge was enjoyed and refreshments served.

Assisting Mrs. Mason at the tea table were Mrs. E. G. Shreve, Mrs. Robert A. Bradley, and Mrs. James North.

Others present were: Mrs. E. H. Harvey, Mrs. W. Blair Stewart, Mrs. W. Price Davis, Mrs. Daniel Reynor, Mrs. Carl A. Surran, Mrs. Brown, Mrs. Samuel L. Salasin, Mrs. I. Shenfield, Mrs. Milton S. Ireland, Mrs. Charles D. Sinkinson, Mrs. C. Garribrant, Mrs. Wilson, Mrs. J. H. Timberlake, and Mrs. Maurice Chesler.

Essex County

Reported by Mrs. R. M. Rogers

The meeting of March 28 was preceded by a luncheon given by the President, Mrs. Theodore Teimer, to her Executive Board and guests, the latter including Mrs. A. Haines Lippincott, Mrs. William Friele and Mrs. George Culver.

The meeting, which was held at the Academy of Medicine, in Newark, was fairly well attended, considering the extremely bad weather. The program was arranged by Mrs. William Crecca and her Committee on Public Relations.

Following a short business session, the President introduced Mrs. A. Haines Lippincott, who

spoke on the work of the National Auxiliary Public Relations Committee. She urged members to keep themselves informed on health matters and on legislation that might affect health conditions. She pointed out many of the fallacies of the so-called "cults" and "healers" and how they fool an ignorant public into thinking that they can cure diseases that have baffled all the scientists. She stated that it is only fair that if they are to be given the same status by law as the physicians, they be compelled to pass the same examinations that medical men have to pass before they are allowed to practice.

The President then introduced Mr. William J. Ellis, Commissioner of Institutions and Agencies, who explained the policies of his department with regard to the various institutions. He pointed out that restoration and rehabilitation of those under the care of his department have been its major concern. Thirty years ago the almshouse was the "great catch-all of human miseries"; today special treatment is accorded the various types of afflicted or dependents, with a view to restoring them to usefulness wherever possible. It is more economic, he said, to return useful citizens to society than to maintain indefinitely the mentally or physically afflicted in institutions.

Delegates to the Annual State Auxiliary Convention held in Atlantic City, June 15-17, were named; they will be Mrs. E. D. Newman and Mrs. R. M. Rogers; Alternates named were Mrs. F. J. McCauley, Mrs. H. J. F. Wallhauser and Mrs. E. L. Burns.

Gloucester County

Reported by Mrs. Henry B. Diverty

The regular meeting of the Woman's Auxiliary to the Gloucester County Medical Society was held Thursday, March 17, at Oakwood Country Club, at 9 p. m. The President, Mrs. Elwood Downs, presided. Members present were Mrs. J. Harris Underwood, Woodbury; Mrs. Ralph Hollinshed, Westville; Mrs. Ralph Moore, Woodbury; Mrs. B. A. Livengood, Swedesboro; Mrs. William Crain, Woodbury; Mrs. David Brewer, Woodbury; Mrs. Fuller Sherman, Woodbury; Mrs. Frederick Wandell, Clayton; Mrs. Paul Pegau, Woodbury, and Mrs. H. B. Diverty, Woodbury.

Our society is in a very flourishing condition. A spirit of friendliness prevails. The late hour of the day accounts for the absence of some members, yet we feel it best to fall in line with our physicians and hold our meetings at the same hour and place.

After adjournment of the business meeting we spent a very informal hour at games.

After the doctors' meeting adjourned, the President invited us to join them in the dining room where a fine collation was served.

On March 21, at 2.30 p. m., a number of our members attended a tea as guests of the Burlington County Society at the Community House in Moorestown.

Hudson County

Reported by Mrs. James M. Murphy

The regular monthly meeting of the Woman's Auxiliary to the Hudson County Medical Society was held on Monday afternoon, April 4, at the Y. W. C. A., with the President, Mrs. George M. Culver, in the chair. For various reasons, the

Reciprocity Meeting, planned for April, had to be postponed until May 2, and members were asked to leave the names of the presidents and leaders of organizations, having health programs, in order that invitations might be sent to them.

Mrs. Culver introduced Mrs. Ethel C. Taneyhill, Field Secretary to the Medical Society of New Jersey, who addressed the members and guests on "Medical Quackery and Nostrums". She gave an interesting account of some recent research work by medical societies regarding the many, much-advertised "cures" for countless ills to which mankind is prone. She had charts arranged regarding this research work, outlining the stories she told of many nostrums. Her plea was, for her hearers, to give thought to what they buy and use, and to learn whether or no the thing advertised is fraudulent, and, if its use be justified, whether it is being sold at a fair profit, or an exorbitant price. Her address was greatly enjoyed.

A large number of the members attended, many having guests.

Plans for the May meeting were made. This is to be an open one, on the first Monday in the month, and will be devoted to Public Health questions. There will be several guest speakers and the State Auxiliary President and other state officers will be present, as well as leaders of the various clubs, whose members are interested in the topic to be presented.

Plans were also made for the Annual May Play-Day, which will be held on May 25, at some one of the Country Clubs.

The sum of \$25 was voted to the Bayonne Day Nursery—to fill out our annual quota of \$100.

After the meeting, tea was enjoyed as usual.

County Society Reports

ATLANTIC COUNTY

John S. Irvin, M.D., Reporter

The regular monthly meeting of the Atlantic County Medical Society was held in the Robert's Room of Hotel Chalfonte, on April 8, at 8.30 p. m., with Dr. H. S. Davidson presiding, and 55 members present. A large number of student nurses from the Atlantic City Hospital also attended the meeting.

Dr. N. J. Quinn, of the Board of Censors, reported that the applications of Drs. A. E. Siegel, G. Ruffin Stamps, and Abraham Krechmer were approved by the Board; and all were elected to active membership in the society.

Dr. W. P. Conaway, Chairman of the Broadcasting Program Committee, reported that the "broadcasts" were finished for the season and expressed his thanks to all the participants and requested the Committee be discharged. Dr. Davidson discharged the Committee, after expressing his appreciation of the services rendered, and thanks to all who made these "broadcasts" a success.

Dr. N. J. Quinn proposed an amendment to the Constitution and By-Laws, at the March meeting, providing for an *Executive Committee* to act in an advisory capacity to the President of the society.

Dr. S. L. Salasin opposed the proposition and stated that he did not see any reason for having such a Committee, as the society held monthly

meetings and the President was fully capable of handling any business which arose. He said that an Executive Committee was primarily elected to function where a society met only annually, and there were transactions that had to be handled during the intervals between meetings. As this society meets regularly every month, he saw no reason for such a committee.

Dr. Quinn said that he felt that one thing such a Committee would accomplish was a complete file of the correspondence and continuous record of the society meetings, which did not now exist. He also stated that the society does not meet during the summer months and that during his presidency he would have welcomed the assistance of such a Committee to help in taking care of the transactions with which he had not yet become familiar.

Dr. V. E. Johnson stated that he felt that there should be some such committee but thought it should consist of the 2 last Past-Presidents, 2 members the President should appoint from the floor, and the President in office for that term. This would give the President aid when he needed it but would not put him in as embarrassing a position as it would if he had 5 Past-Presidents to cope with.

Dr. S. Barbash stated that, as Dr. Stewart had told us at the March meeting, the Board of Censors could be called at any time in an advisory capacity if the President so desired.

When the amendment was voted upon, it was defeated by a large majority.

Dr. W. J. Carrington reported that the State Society-Rutger's Post-Graduate Committee was more than gratified with the response from this center to the courses offered as 60 members had enrolled. He extended an invitation to anyone wishing still to enroll and stated that applications could be left with any member of his Committee.

Dr. John F. Hagerty, President of the State Society, was introduced by Dr. Davidson and told the society that he thought the courses of lectures should be spoken of as "New Jersey State Medical Society Courses" as the State Society was the real sponsor and should have this credit.

He stated that there were 5 courses offered in Newark and that 732 members were enrolled in Essex County; and they anticipated having the figures increased to 800 before the season was over; which would be nearly 1/3 of the membership of the State Society.

There being no further business, Dr. Davidson extended to all visitors present an invitation to take part in the discussion of the papers to follow.

The Scientific Program was then presented by Dr. William S. Wheeling, of Windber, Pa., who spoke on "Experiences with 500 Cases of Goiter with Special Reference to Thyrotoxicosis". (To be published, in full, in a later issue of the Journal.)

BERGEN COUNTY

Charles Littwin, M.D., Reporter

The regular meeting of the Bergen County Medical Society was held at Hackensack Hospital on Tuesday evening, April 12, with Dr. Walter Schmidt presiding. There was a short business session, most of the business having been taken

up by the Executive Committee whose report was accepted by the society.

The first speaker of the evening was Mrs. Ethel C. Taneyhill, Field Secretary of the State Medical Society, who gave an enlightening résumé of her work. Dr. Snedecor discussed the paper, but on account of the long general program, discussion had to be limited.

Dr. Farmer, Chairman of the Public Relations Committee, introduced as the next speaker Dr. Julius Levy, of the Bureau of Child Hygiene, New Jersey State Health Department. His subject was a study of "Infant and Maternal Mortality". He illustrated his talk with lantern slides and showed statistics of the beneficial influence on infant and maternal mortality that the Baby Keep-Well Stations exerted. This talk was very interesting and well received. Discussion was opened by Drs. Levitas and Wilson.

The paper of the evening was delivered by Dr. Allen O. Whipple, Director of Surgery, Presbyterian Hospital, New York City. His subject was the "Management of Surgical Problems Complicating Typhoid Fever". Discussion was opened by Drs. A. W. Ward, George Finke and F. C. McCormack.

At 11:30 the meeting was adjourned and a collation was served.

CAMDEN COUNTY

R. L. Sharp, M.D., Reporter

One of the best attended and most interesting meetings of the year was held on April 5, when the Camden County Medical Society was entertained by the West Jersey Homeopathic Hospital Staff, and 108 members and guests were present.

Dr. E. G. Hummel opened the meeting and, after reading the names of Drs. MacAlpine and Ondovchak, who had made application for membership, turned the meeting over to the host as represented by Dr. Lee Griscom, who gave a short address of welcome.

Dr. Barrett opened the program by presenting 2 unusual surgical cases: (1) An infant, aged 6 months, whose mother, with him in her arms, had fallen downstairs. He had a skull fracture with herniation over the left parietal region, and a right-side hemiplegia. After bone fragments had been removed and the flap replaced, he recovered from the paralysis, in about 5 days, but nobody could yet say what the future has in store for this youngster.

(2) A deep "Laceration of the Neck", on a man aged 35, resulting from attempted suicide. The larynx and glottis had been exposed but he had not cut the carotid. A tracheotomy tube was inserted and the wound closed; tube removed after the ninth day; practically no scarring resulted and muscle function seemed perfect.

Dr. Harry B. Mark followed with presentation of a colored male, age 8 yr., who had developed, in June 1931, an "Acute Hemorrhagic Nephritis Following Measles". When admitted, he was markedly edematous and irrational, with sonorous type of breathing, moist râles in the chest, and free fluid in the abdomen. The usual hot packs and medication were given, with no resulting improvement. They then put him on a low-salt and low-protein diet, with magnesium sulphate by bowel and mouth, and forced the taking of fluids. At present, the boy is apparently quite normal, and his urine shows only a few pus cells.

Drs. Leon Ashcraft and Ralph S. Wright presented a case of "Prostatic Resection by the Transurethral Route". The operation was so satisfactory that he was discharged from the hospital at the end of 10 days.

Dr. Ashcraft illustrated, with diagrams, the method of doing that operation and gave us a brief résumé of its history, and stated that of all the methods in use he thought the McCarthy operation the one of choice. In the feeble patient it is especially indicated, but he was not prepared to say that it should entirely replace the intraabdominal route.

Dr. Lee E. Griscom presented a very interesting case—a patient with "Pneumococcic Meningitis", who had in December, some "congestion in the lungs", and since then, fever, attacks of vomiting every few days and occasional bloody stools. All examinations, including those for typhoid, were negative except as to the spinal fluid, which was under pressure and showed presence of the Type III pneumococcus. Never were there any neurologic findings, however, and the patient made a good recovery.

Dr. E. S. Hallinger reported a case of "Sinus Thrombosis and Intracranial Abscess" with good recovery, in which the only positive neurologic findings were a positive Kernig's sign and evidence of delayed mental processes. The symptomatology was not at all in keeping with the pathology. Dr. Hallinger pointed out the difficulty in making a correct diagnosis of such conditions.

Dr. H. Wesley Jack presented 2 cases of "Gall-Bladder Disease" in which he paralleled the symptoms and pathologic findings; the interesting feature being that in one patient, with relatively mild symptomatology, there was an extensive pathologic condition found at operation, while in the other, who appeared extremely ill, the pathologic condition was much less pronounced. Dr. Jack emphasized the importance of exploring the common duct in these cases of gall-bladder disease, and illustrated with lantern slides the method of approach.

Drs. J. A. Brooks and Stanley Brown showed 3 patients. First a case of "Multiple Congenital Anomalies" in a twin male, aged 8, who had a congenital amputation of the left arm, ankylosis of right arm at the elbow, extremely short thighs, talipes equino-varus deformity, and an absence of the fifth toe. His brother was normal.

Secondly, a case of musculospiral nerve severance occurring with a fracture of the middle-third of the humerus. At operation, the ends of the nerve were found too widely separated to permit of suturing and a tendon transplant (Jones operation) was done, with very excellent results.

Thirdly, a case of complete epiphyseal dislocation at the lower end of femur; with satisfactory replacement.

Dr. C. R. Hutcheson presented some "Interesting Roentgenologic Studies", among them some cholecystographic films, an abdominal aneurysm, and a dislocation of the fourth and fifth cervical vertebrae.

Dr. G. O. Favorite spoke on "Infectious Mononucleosis" and presented a very carefully studied case of the same, with the blood pictures etc. He also gave a résumé of the history of the disease.

Dr. H. K. Eynon spoke on "Undulant Fever" and reported a case. He thought that some cases were going undiagnosed and mentioned that

there are no diagnostic criteria except the agglutination test.

Dr. Hadley closed the program with the presentation of a case of "Ruptured Corpus Luteum with Intraabdominal Hemorrhage" and a survey of the literature on this subject. He also showed a tubal pregnancy with unusual preservation of the concept and spoke of the diagnostic features.

Because of the lateness of the hour, all discussion was omitted and, on motion of Dr. A. H. Lippincott, the society extended to the Staff a vote of thanks.

Following adjournment, a delightful buffet supper was tendered by the West Jersey Hospital.

CUMBERLAND COUNTY

E. S. Corson, M.D., Reporter

The spring meeting of the society was held at the Hotel Cumberland, Bridgeton, Tuesday, April 12, and a record attendance met President Frank Sheppard.

Dr. T. R. Bellak, of Leesburg, was elected to membership.

The Post-Graduate Course for Salem and Cumberland Counties was discussed by Dr. L. E. Myatt, Chairman for Cumberland County. The program is of special interest and the opening lecture on April 14, by Dr. W. Wayne Babcock, is anticipated with pleasure; "Surgery of Duodenum and Stomach", will be his subject.

The Plan for Proper Accrediting and Control of Specialism and Specialties, suggested by Dr. Waters at the last Annual Meeting of the State Medical Society, was discussed, and the Delegates to the State Society were instructed to vote in its favor as presented for final vote by the State Society.

Dr. Reba Lloyd extended a cordial invitation to the members of the component societies of Salem, Cumberland and Gloucester Counties to meet at her rural Sanatorium, Ivy Manor, Jericho, for the July meeting.

Delegates attending adjoining county societies reported. Dr. H. G. Miller reported especial benefits derived from the meetings of the Gloucester County Society and suggested a change of time for the meeting of our society from afternoon to evening.

Dr. J. Gershon Cohen, of the Post-Graduate Medical School, of Philadelphia, gave an illustrated lecture entitled, "Newer Things in X-ray Work". He reviewed the progress of the practical use of x-rays since introduced by Roentgen in 1895. At first, the bones or opaque bodies, were capable of being skiagraphed. Later, the use of mineralized fluids made it possible to outline various cavities of the body. The introduction of air into the brain cavities makes the definition of intracranial tumors more certain. Tumors of the spinal canal can now be located by stoppage of the circulation of the mineralized oil, as the body position is changed to facilitate its flow. Reference was made to some of the many martyrs to the progress of this new science.

The first use of x-rays in the Polyclinic Hospital, by Dr. Max Stern, in extraction of a bullet from a policeman's hand, in 1896, was witnessed by Dr. E. S. Corson who was an intern on the hospital staff at that time. When one reviews the careless manner in which the instruments were used it is a wonder that more doctors were not seriously burned.

Dr. Henry O. Reik, Executive Secretary of the State Medical Society reviewed very vividly the progress of medical legislation to date. The Surgeons' Specialist Bill has been well covered by the one to be presented to the State Medical Society for adoption. This one is broader in application and includes specialists in all branches. The Workmen's Compensation Act bids fair to be amended by allowing the employee to choose his own doctor, with the sanction of the employer. The program for the State Meeting in Atlantic City is well under way and will be presented in the next copy of the State Journal.

ESSEX COUNTY

E. LeRoy Wood, M.D., Reporter

President James H. Lowrey introduced to the Essex County Medical Society, Thursday evening, April 14, H. Sheridan Baketel, A.M., M.D., F.A.C.P., Editor of "Medical Economics", who had chosen as his subject, "Medicine, a Craft or an Industry". He offered sound advice and many good suggestions for the economic betterment of physicians, with special reference to possibly off-setting "state medicine" and the standardization of medical service by mass production. He said that physicians are craftsmen, of the highest type, chosen gentlemen who fulfill a noble mission. If they would constantly remember this, and render to their patients a confidential, personal service of the highest type, they would have little to fear from "state medicine" that impersonal, mass-production, industrial type of medical service.

The physician's standing and ability should be displayed in the best light, and attention should be given to all associated factors that may contribute toward success, such as; prominent location of office; furnishing and decoration of his reception and work rooms; the appearance and manners of his office assistants; quality and style of stationery used personally or made available to waiting patients; the personality and psychology understanding of himself and assistants; and give scrupulous attention to a detailed and thorough examination of the patient. In a well-trained physician, who gives his best and most efficient service, the public can find a sympathetic friend, and a physician who cannot be duplicated by any political state or municipal body; and, the physician whose practice is built upon such a foundation need not fear competition from *state medicine*.

The following 6 new members were elected: Marcus T. Block, Elizabeth R. Brackett, Clement H. Golden, W. L. Harrington, Jacob Livingston, and Robert G. Moore.

Academy of Medicine of Northern New Jersey Eye, Ear, Nose and Throat Section

A. Russell Sherman, M.D., Secretary

In accord with the plan to have one or more purely clinical meetings during the year, the regular monthly meeting of the Eye, Ear, Nose and Throat Section of the Academy of Medicine of Northern New Jersey was held Monday, April 11, at the Newark Beth Israel Hospital, under auspices of the departments of ophthalmology and

otolaryngology of the hospital. Dr. Buvinger, the Chairman, presided, and 75 members and guests were present.

Dr. Elbert S. Sherman reported that the proposed amendment to the Optometry Act in the New Jersey State Legislature had been altered to remove the features considered objectionable from a public health standpoint, and then passed.

The nominees for offices for the coming year, Elbert A. Curtis, Chairman; John L. Courier, Vice-Chairman; and A. Russell Sherman, Secretary, were unanimously elected.

Dr. L. Loeser demonstrated a series of encephalograms showing intracranial changes in several patients who had suffered mild head injuries. Discussed by Dr. Eagleton.

Dr. J. Maliniak presented 3 patients who had plastic operations for deformities of the nose or eyelids. Discussed by Dr. Peer.

Dr. Zvaifler described a case of agranulocytosis in which there was extensive involvement of the larynx, and demonstrated the postmortem specimen. He presented also a patient who had recovered from a large brain abscess following a radical mastoid operation.

Dr. Goldstein presented a patient who had suffered a left acute neuroretinitis which improved from almost complete blindness to practically normal vision, following surgical drainage of the ethmoid and sphenoid sinuses on the same side.

Dr. Rettig demonstrated a patient who showed a complete bony closure of the posterior choana.

Dr. Rados presented the following patients:

(1) A man who had normal vision in his remaining eye several years after removal of one eye because of sympathetic ophthalmia of the choroidal type.

(2) Another case of sympathetic ophthalmia. This was of the anterior type. Five years after enucleation of the injured eye, iridectomy preliminary to cataract extraction was performed and followed by a severe iridocyclitis.

(3) A young man who had received several radium treatments for vernal catarrh. He showed a telangiectasis of the lids, trichiasis, and a posterior radiation cataract which came on about 2 years after the treatment and has remained stationary for the past 5 years.

(4) A woman who 3 years ago developed a pulsating exophthalmos following a head injury. Her exophthalmos, and the head noises, subsided after ligation of the common carotid, but the sight was lost because of thrombosis of the central retinal vein with secondary glaucoma.

Dr. Drapkin demonstrated with the slit-lamp a patient showing a total persistent pupillary membrane.

Dr. Schulsinger showed 2 patients who had been operated on for bilateral congenital ptosis by the Blaskovics operation; also a case of tuberculous choroiditis.

Dr. Adelman demonstrated a boy who had peculiar bilateral macular defects, probably congenital.

Dr. Zimmerman demonstrated a patient with bilateral degenerative changes of the cornea, as the result of repeated attacks of rosacea keratitis.

X-ray films, visualizing the tear sac after injection of lipiodol, were also shown.

The meeting was adjourned at 11:30 p. m. after the serving of refreshments.

Homeopathic Hospital Staff Meeting

Edward H. Willan, M.D., and F. C. Dinger, M.D.,
Reporters

The regular monthly clinical staff meeting of the Homeopathic Hospital was held at Baker House, Thursday evening, March 24, with Dr. Willan presiding, and 23 staff members present. The program comprised 5 case reports and served demonstrations radiologic and pathologic in character.

Case 1. Dr. Willan reported the case of a single girl, aged 35, admitted because of an attack of right-sided pain of 24 hr. duration. The past history recorded an acute arthritis with endocarditis at the age of 12; pneumonia when 21; sinus trouble at 22; and an operation for appendicitis at 32. Since the appendectomy she had continued to have occasional attacks of right-sided colic, which, it was believed, were due to gall-bladder disease. This particular attack started on the day before admission, at 5 p. m., with sudden pain which in 10 minutes was very severe. During the night the pain continued and in the morning she vomited a large quantity of brown and black material. The attending doctor gave several doses of codeine; also a cathartic was ordered and an enema given, resulting in a good bowel action. Menstruation had occurred 2 weeks previously. The pain continued in spite of the codeine and toward evening, 24 hours after its onset, she seemed to go into shock. There was marked pallor and cold perspiration. Morphine sulphate gr. $\frac{1}{4}$ was given and the patient sent to the hospital by ambulance.

Dr. Willan saw her at midnight, when she was in moderate shock, perspiring and pale. She complained of severe pain in the right upper quadrant, and there was marked tenderness and rigidity over the entire right abdomen, with nausea, and a blood pressure of 132/72. Heart showed a marked diastolic and systolic murmur but the pulse was fair, rate 100, and regular; temperature 100° by rectum. Diagnosis of acute cholecystitis was made and operation revealed moderate thickening of a white-walled gall-bladder without stones. There was no evidence of acute inflammation. The pancreas, stomach and intestines showed no disease. The appendix had been removed previously. A cholecystectomy was quickly performed and the wound closed with 2 Penrose drains to the stump of the cystic duct. The patient left the operating table at 2 a. m. with a good pulse and apparently none the worse for the operation. The nurse in charge reported that at 6.30 a. m. the patient's condition was good; she had talked with the patient, turned her in bed, and given her a drink of water. At 8 o'clock the patient was found in collapse; pulseless, clammy and cold, with exceedingly pale mucous membranes. Inspection of the wound showed an area of deep red stain on the dressing. Stimulation was immediately given, intravenously arranged for, and an attempt made to arrange for transfusion, but in less than 1 hour she had expired. Autopsy findings, as reported by the pathologist, were in part as follows; heart moderately hypertrophied and the musculature showed grayish-white patches. On section, the heart muscle showed grayish areas of scar tissue; mitral valve thick and stiffened with verrucous implantation; aortic valve also damaged in the same way. The aorta showed large plaques of atheromatous degeneration, which were extensive but did not have the parallel aspect characteristic of

lues. Coronary arteries markedly sclerosed. The papillary muscles and cordae tendinae were definitely thickened and showed extensive fibrosis. Inspection of the operative site showed the cystic duct and artery dry and secured with 2 chronic catgut sutures. There was no bleeding in that area. In the gastrocolic omentum there was a large hematoma measuring 15 x 20 x 15 cm., which evidently occurred from a bleeding vessel within this fatty structure, as all vessels there were very atheromatous. There was free blood in the peritoneal cavity to the extent of 1800 to 2000 c.c. Cause of death was hemorrhage into the gastrocolic omentum and the blood had been confined for a time but finally burst through into the general peritoneal cavity with release of enough blood to exsanguinate the patient.

Dr. Fendrick then showed slides with the projectoscope, demonstrating that the myocardium presented typical Aschoff bodies. There were marked areas of fibrous tissue formation, with numerous, small, new-formed blood vessels in the heart wall, typical of myocarditis secondary to acute arthritis. He also demonstrated the heart itself, showing marked atheroma of the vessels and advanced damage of the valves, together with hypertrophy of the ventricular walls.

Summing up the record of this case, Dr. Willan said he considered it was a case of abdominal angina, and he quoted from Dr. Harlow Brooks, as follows: "In some instances the entire location of pain may be extra-cardiac, as in the abdomen, and yet the lesion as seen at post-mortem is found to be located in the heart. A frequent location of the anginal pain is in the region of the gall-bladder. More than once the writer has known of patients being operated upon under the diagnosis of gall-bladder or gall-passage disease when the real lesion was in the heart. Within 1 recent week, on the service adjoining that of the author, 2 patients entered with diagnosis of acute gall-bladder disease, but, fortunately, because of the desperate condition of the patients, the surgeon refused, in both instances, to operate, and at autopsy, in both, coronary thrombosis was discovered. The history of previous similar attacks definitely fixed the condition, in both instances, as angina pectoris, especially as, in both instances, the gall-bladder and its ducts were found to be perfectly normal. Eleven cases in which gall-bladder disease was closely simulated appear in the author's series." Dr. Alexander Lambert was also quoted, as follows: "It is notable that transmission is along the course of blood vessels in most instances, and it is noticeable also that irritable foci such as chronic appendicitis, inflamed gall-bladder, or any other focus similarly involved, may thus act as the focus of inspiration for development of an anginal attack."

The pathologic report on the removed gall-bladder was "chronic cholecystitis". Dr. Willan believed that the attack was distinctly anginal in origin but was reflected to the gall-bladder region by virtue of the chronic cholecystitis. The hemorrhage was in an area which was subjected to pressure during the operation. In this particular operation, no metal retractor was used, the assistant's hand over a gauze pad furnishing retraction while the cystic duct was isolated and tied. In spite of this precaution, probably one of the brittle atheromatous vessels in the gastrocolic omentum was traumatised enough to start a flow of blood. In many structures this bleeding would, of course, have stopped spontaneously but, owing to the peculiar nature of the

gastrocolic omentum, the absence of muscle, there was no contractility and the small vessels bled on until it caused the patient's death.

Case 2. Reported by Dr. R. C. Ribbens. A man, aged 51, gave a long history of repeated attacks of pain with jaundice. Patient had an attack 1 year ago and since that time has never been entirely clear from jaundice. He presented himself because of dryness and itching of the skin, and jaundice. He was sent into the hospital for study. The diagnosis was acute catarrhal cholecystitis with duodenitis. A cholecystogram was made but no definite gall-bladder shadow was obtained. After 5 days in the hospital, the patient had more pain and on the sixth day was subjected to operation. A right rectus incision was made and the gall-bladder presented as a large tense tumor. Fatty tissues of the abdomen were jaundiced, the biliary tract glands were enlarged and soft; pancreas soft, head not enlarged. Cholecystostomy was done. The gall-bladder contained a large amount of inspissated bile; moderate bleeding at operation, from all vessels; split-tube drain placed to the Foramen of Winslow. During the first 3 postoperative days the patient's condition was satisfactory, but on the fourth there was a rise in temperature, distension of abdomen and hiccoughs. Dressing at this time showed a dark blood oozing along the drainage tract. Patient grew rapidly worse and died on the fifth postoperative day, after a temperature of 105°. Autopsy report showed: patient deeply jaundiced in skin and all structures; blood clot between muscle layers of operation wound; large amount of blood clot between liver and diaphragm, and some at site of the gall-bladder; heart normal except for small areas of muscle fibrosis; gall-bladder thick-walled, edematous and contained some purulent bile; common duct dilated to 1.5 cm. in diameter; at ampulla of Vater, a neoplastic formation with superimposed degeneration and necrosis; on opposite side of the duodenum, a similar area of necrosis and perforation.

Dr. Fendrick then presented slides showing the condition was an adenocarcinoma of the ampulla of Vater with secondary degeneration.

Case 3. Reported by Dr. F. C. Dinger. A girl, with chief complaint of severe cramps over entire abdomen, later localized in the pelvis, occurring in cycles of 26 to 28 days, lasting 4 to 6 days, and excruciating at times, even when there was no menstruation. Upon physical examination, a number of interesting phenomena were noted. First, the head appeared like that of Mongolian idiot, or Türmschadel. Pupils were irregular and eccentric, and there was some nystagmus. Eyes showed high myopia and had Mongolian cast; some slight facial asymmetry; had funnel breast with absence of nipple. Microsomic deformity of hand with poor muscular development and delayed bone formation; mental deficiency of mild degree; atresia and absence of the vagina; rectal examination disclosed a firm, rounded mass but no cervical os could be determined. An attempt was made surgically to construct an opening between the closely approximated bladder and rectum but this had to be abandoned because the walls were too thin and a rectal fistula would have resulted. Some relief had to be given, from the cyclic attacks of cramps, and an exploratory laparotomy was suggested. Upon opening the peritoneal cavity there appeared 2 bodies just posterior to the bladder: that to the left, spherical, firm, and attached to

it the left tube; but the broad ligament appeared as a separate entity attached to the lateral wall. The smaller of the 2 masses was attached to the spherical mass but appeared softer and cystic. The right tube had its origin on the right lateral wall, attached to which there was a broad ligament containing an ovary. The two uterine bodies were adherent to the recto-sigmoid gut and had to be dissected free before removal could be attempted. The 2 uterine bodies were removed. The wall between the bladder and rectum appeared to be nothing more than a thin septum. Of these 2 uterine bodies, the softer was opened and contained a large amount of degenerative bloody material. The firmer had a thick wall, about 3 cm. in thickness, and a small cavity with a diameter of 1.5 cm. The physical examination had been done completely but no inclusive name could be given to the entire condition, so a neurologist was consulted. He classified this as a case of *microsomia*. It is interesting to note that a younger sister of the patient showed the same characteristics but not to so marked a degree.

Case 4. A man, aged 56, was admitted to the hospital 2 days after onset of pain in right lower quadrant, accompanied by vomiting which caused part of his intestines to crowd into an old inguinal hernia. Patient replaced them but still had severe pain, very severe over the inguinal canal. At 5 p. m. on the day of admission, pain became very severe, and the abdomen rigid; distension rapidly ensued; urine showed few pus cells; blood count 8150, with 80% polys.; nuclear index, 4.5% showing a marked shift to the left. Diagnosis of peritonitis with possibly an acute intestinal obstruction, was made and the abdomen opened at 9 p. m. Operation disclosed a gangrenous appendix with perforation and general peritonitis; cecum inflamed and indurated; free pus in peritoneal cavity. Inversion of the appendiceal stump was not attempted, because of induration and inflamed condition of the cecum, but appendix was ligated and excised; meso-appendix secured by suture; Michulicz drain placed into the wound, which was left entirely unsutured. Patient given nothing by mouth for 48 hr.; intravenous 1500 c.c. of 5% glucose and saline, twice daily. At the end of 4 days, pus was rolling out of the drain by simply turning patient on his side. No vomiting at any time after operation. The only untoward sign was hiccoughs, which began day after operation and continued, off and on, for 6 days, at which time the Michulicz drain was removed, and the hiccoughs ceased immediately as the drain was taken out. Remainder of postoperative course entirely uneventful; bowels moved freely with enema on third postoperative morning, and regularly thereafter; wound strapped after removal of drain, but loosely, so drainage continued until twelfth postoperative day when, under local anesthesia, the fascia was approximated and the skin edges brought together; healed without difficulty and patient went home on the twenty-fourth postoperative day.

This case was reported to bring out the use of a Michulicz drain, which consists of a piece of rubber dam 15 in. square, in which the nurse cuts numerous small holes for drainage. It is to be tucked into the wound in the form of a sac and the interior of the sac packed with a 4-in. gauze drain. This drain should be prepared in the operating room in 10 yard lengths. In this case about 7 yards of packing were placed into the rubber sac, the edges of which protrude outside the edges of the wound. On the third post-

operative day several feet of the packing were removed, and this procedure repeated on the fifth and sixth postoperative days, all the packing and the rubber drain being entirely removed at the last. This method of draining seemed to be efficient, and it certainly absorbed and allowed to be extruded from the abdominal cavity tremendous quantities of pus. The rubber, of course, being interposed between the peritoneal structures and the gauze, allowed the drain to be withdrawn without harmful traumatism. This type of drainage may be predisposed to incisional hernia, but such patients are in so desperate a position as to warrant this risk.

Case 5. Reported by Dr. F. C. Dingel in the absence of Dr. E. J. VanGieson. A girl, aged 23, was admitted for care of a long-standing ulcer on the left hip, with a large abscess in the inguinal region. Some 12 years ago she received a severe burn involving the entire left leg and most of the buttocks on that side. All healed except 1 area 8 x 15 cm. over the greater trochanter. This was constantly treated by ointments, but without benefit. Within the past few months several small abscesses appeared in the region of the inguinal glands; which were opened and drained, by Dr. VanGieson, but failed to heal. The patch over the trochanter promised well for skin grafting. At the operating table, the abscess material, appearing malignant, was sent to the laboratory, where it was labeled epithelioma, grade 1; as it probably had been from the start, but, being of low grade malignancy it was undetected as such. Radiation is being attempted but in the presence of a pelvic mass it seems hopeless. Amputation would avail nothing. This is truly a case in which the theory of chronic irritation fits the malignancy.

Case 6. Presented by Dr. Alfred Muerlin. This is a case of infertility following a difficult labor; a condition that is met frequently as one causing a large proportion of secondary sterilities.

The patient, 35 years old, housewife, had formerly been a trained nurse, complaining of sterility. Her husband was 45 years of age, a well-developed and nourished man who showed no stigma of endocrine disturbances. He had a child by his first wife and also one by the patient, whose past history revealed an appendectomy when 12 years of age and diphtheria in childhood. Her only pregnancy began in July 1928. During the eighth month she had moderate bleeding for 6 hours following an automobile ride; 5 days before entering hospital the vertex was still high above the inlet and there was a spongy mass felt in front of the head; membranes ruptured spontaneously at home; no further bleeding; slow and difficult labor, the amniotic fluid having all drained away some time before. It was necessary to do a mid-forceps extraction and the fourchette and vagina were deeply lacerated in each lateral sulcus. An 8 lb. boy was delivered and the lacerations repaired. The infant was feeble and lacked vitality from the beginning. It is of interest that the baby did fairly well while in the hospital, but died 1 week after going home, in spite of the splendid care of a well-known pediatrician. An autopsy was secured, and diagnosis of malnutrition was made by the pathologist.

Postpartum examination in May 1929 showed a multiparous introitus, sulcus scars well healed, and a small erosion of cervix. The uterus was anterior, normal in size and consistency; adnexa negative.

The investigation begun in January of this year, 2½ years later, revealed a well healed and firm perineum; cervix still eroded and there was a small U-shaped laceration with a small polyp protruding from the external os; no ectropion; moderate leukorrhea; uterus slightly larger than normal, anterior position; adnexa negative to palpation. Her menses were of the average type 13 x 28 x 4:5. The last period December 21. Coitus was satisfactory but the patient believed there was an effluvium of spermatazoa. The vaginal reaction was alkaline following cauterization of the cervix. As there were no contraindications an insufflation test was done and patency was established at 80 mm. of mercury. A Huhner test showed the vaginal pool to be about 1 dram in amount, of normal consistency, with active sperm. No abnormal forms were found except an occasional megaloccephalic. There were no pus cells. Specimen from the cervix at the level of the internal os showed the spermatozoa to be still very active and numerous; a very normal specimen.

Injection of the uterus and tubes with lipiodol showed a uterine cavity of normal size, shape, and position with a patent right tube and a non-patent left tube. Whether this was due to an inflammatory condition on that side, or to a spasm of the tubal sphincter, was not evident. The block is, however, in the exact location of the tubal muscle described by Arnstam and Reinberg, and later by Jarcho, Peterson and others. Stein and Leventhal in the Jour. A. M. A., Feb. 20, 1932, report a case of unilateral spasm, in which a radiograph taken 1 hr. later showed the contraction relaxed and the tube patent.

(1) The case is one of infertility in which the couple made every effort to procure off-spring.

(2) A plan of procedure slightly modified from that of Meeker was followed.

(3) The husband's potency was proved by the Huhner test, which relieved him of further responsibility and investigation.

(4) It was found that one Fallopian tube was not patent but that there was no obstruction, as found by insufflation at the low pressure of 80 mm. of mercury in the other.

(5) This leaves the cervix, alone, as the offending factor and illustrates again the importance of a thorough postpartum examination.

Associated Physicians of Montclair and Vicinity

Cyril S. Kirby, M.D., Secretary

Meeting of the Associated Physicians of Montclair and Vicinity was held on Friday evening, April 22, at 8.45 p. m.

The first part of the meeting was given over to reading of the Resolutions passed as a tribute to our late member, Dr. Walter Post, of Bloomfield.

The Speaker of the evening was Dr. Frederick W. Bancroft, of the Fifth Avenue Hospital, New York City. He has done the first real research work on "Surgical Thrombosis and Embolism" and read a most interesting and instructive abstract of his full report which is to appear in an early issue of Surgery, Gynecology and Obstetrics.

Babies' Hospital Coit Memorial

Paul H. Hosp, M.D., Secretary

The Babies' Hospital has started a new department, to supply a community need. The Executive Board, after studying for 1 year the needs for care and welfare of tuberculous and pre-tuberculous children in the county and state, decided that the provisions for these children were inadequate, but should become a major activity of the institution.

Drs. Elmer G. Wherry, R. H. Scott, and Oscar Mockridge were appointed as a special committee to study the problem. The organization of a clinic for "Lung Diseases" was authorized; to be headed by Dr. Irving Applebaum.

GLOUCESTER COUNTY

Henry B. Diverty, M.D., Reporter

Members of the Gloucester County Medical Society enjoyed an instructive and interesting program, given by members of the staff of Jeanes' Hospital April 21, at the Oakwood Country Club.

"Symposium on Carcinoma" was presented by the following members of the hospital staff: "General Effect of Malignancy", Dr. W. B. Hastings; "Cancer of Breast", Dr. R. W. Teahan; "Management of Carcinoma of the Cervix", Dr. Hoke Wammoth; "Cancer of the Skin", Dr. E. E. Downs; and "Management of Malignancy", Dr. C. A. Whitcomb. Dr. W. S. Shafer, of Camden, also discussed the papers.

The members accepted invitation from Dr. Reba Lloyd, of Bridgeton, to hold a joint meeting at her sanatorium with the Cumberland and Salem County Societies, on July 2.

Former Gloucester County residents who have won renown in their localities, in the field of medicine, will be honored at the May meeting, when the society will hold a stag dinner. Among the guests at that time will be Dr. Swartz, Dr. Laws and Dr. Wolferth, of Philadelphia; Dr. Buzby and Dr. Lee, of Camden.

Dr. S. Cradick Rhoads, of Westville, was elected a member of the society.

It was reported that several members are attending the 8 weekly lectures of the Post-Graduate Course prepared by the State Medical Society and Rutgers University, being held in Camden, with prominent New York and Philadelphia physicians as teachers.

Members present were: Dr. E. E. Downs, of Woodbury, President; Dr. Ralph Hollinshed, Westville, Secretary; Drs. Harry Nelson, Dorothy Rogers, Duncan Campbell, Paul M. Pegau, William E. Crain, H. B. Diverty, J. Harris Underwood and Fuller Sherman, of Woodbury; I. W. Knight, W. J. Burkett, M. F. Lummis and Thomas L. Sooy, of Pitman; William Pedrick, Glassboro; Don B. Weems and Wilson Stout, Wenonah; Henry L. Sinexon, Paulsboro; Irving J. Stewart, Swedesboro; A. B. Black, Mickleton; Horace M. Forder, Williamstown; Edwin Ristine, Westville, and C. I. Ulmer, Gibbstown. Visitors were Dr. William S. Shafer and Dr. Emily Stokes.

Following the meeting, members of the Woman's Auxiliary joined with the physicians at supper.

HUDSON COUNTY

Harry J. Perlberg, M.D., Secretary

The regular meeting of the Hudson County Medical Society was held at the Carteret Club Jersey City, on April 5. The meeting was called to order at 9.10 p. m. and minutes of the last Executive Committee Meetings were read and accepted by unanimous vote.

Dr. Maras moved that proceedings of the special Executive Committee meeting be published in detail. This was seconded and carried.

Dr. Schwarz announced the Reception Dinner to new members, which will take place aboard a steamship, in April. This dinner is limited to 100 members of the society, including the newly elected members; therefore, early applications are advisable.

The following amendment to the By-Laws was offered by Dr. Jane: Any member who affiliates himself (herself) with any Clinic or Dispensary not actually operating in an established and recognized hospital, unless such clinic or dispensary has been approved by this society, shall be liable to censure, suspension or expulsion.

The following amendment to the By-Laws was offered, for its first reading, by Dr. Schwarz. There shall be 2 classes of membership in the Hudson County Medical Society, Regular and Associate.

An Associate member shall have all the rights and privileges of a regular member except the right to vote and hold office.

All future applicants for regular membership in the Hudson County Medical Society shall first qualify by a probationary associate membership of 2 years' duration. At the termination of this time they shall apply for regular membership.

The dues of an associate member shall be \$5 per annum.

Dr. Weiss proposed that an amendment be formulated to increase the number of trustees to a total appropriate to the present membership of the County Society.

The following nominations for Delegates and Alternates in addition to those already nominated, were, Delegates: Drs. R. H. Stockfish, B. T. D. Schwarz, E. J. Chapman, W. L. Williamson. Alternates: Drs. C. B. Kelley, L. W. Dodson, G. L. Higgins, J. S. Madaras.

The following mentioned were proposed for the nominating committee: Drs. Pearlstein, Barbarite, Chapman, Waters, Schwarz, C. B. Kelley, Benjamin, William Sweeney.

The Scientific Session began at 9.30 p. m. when Dr. Brooke tendered the chair to Mr. Hastings, President of the Bar Association, and he introduced Jane M. Hoey, of New York City. The subject of Miss Hoey's talk was "The Causes of Crime".

The study of this problem dates back a long way and concerns the study by the New York Crime Commission since the Baumer Act in 1926. The mission of Miss Hoey on the Commission was to attempt to find the causes of crime. An intensive study was made of state prison inmates comprising more than 200 case histories. The findings were of considerable importance, since they showed a marked similarity in the roads to prison taken by the majority of the inmates. Many of the inmates graduated from the lesser institutions of reformatories or state prisons.

A great many were from homes where condi-

tions aggravated already existing tendencies. There were signs in these homes of a definite lack of supervision, which made for a lack of work, a lack of civil interest, and a lack of any form of diversion along beneficial lines.

Another group studied, comprised 200, who were about to be committed to parental schools. The same factors were found to be present, and 51% of this group was found to be from delinquent homes and to be offenders one to several times each. This condition led to the recognition of 3 apparent facts.

(1) Why is there such a difference between children of the same family, living in similar conditions, and exposed to the same influences? One will go straight, and the other will follow a crooked path to prison. The reason here seems to be that the normals who go straight possess a higher intelligence and are mechanically less apt. The abnormals possess a higher mechanical ability but have no place to use it.

(2) What neighborhood influences are in force? Studies showed a marked difference between the inmates from country and city, where most of the criminals come from. Irrespective of the size of cities from which these criminals originate, there was found to be no community clubs, Y. M. C. A.'s or such, but plenty of pool-rooms, gaming houses and similar places of pernicious influence.

(3) What is the age-incidence? A study was made of new and chronic criminals between the ages of 16 and 21. This study is still in the making but is to be published within a month.

In conclusion, Miss Hoey stated that more than \$50,000,000 had been spent on prisons within the past 5 years. Many more millions must be spent, and more prisons built, unless measures are devised to arrest the production of delinquents and criminals.

The second subject—"Methods of Prevention"—was presented by Dr. F. J. O'Brien, of the New York City Board of Education, who stressed some of the fundamental attributes of humanity. We are apt to follow the easier courses and pay little attention to abnormal occurrences until they are brought forcibly to our attention. It takes the kidnapping of some prominent individual's child to focus our attention on a condition which is almost chronic with us. Heretofore, the idea has been, apparently, to study the offense and forget the individual. We ignore bad conduct until it threatens us. To control conduct, we must know the motives which prompted it. There is no *single cause* for crime, but there are many factors associated with any antisocial conduct. The *actions* of criminals are *symptoms*, not *causes*. Penal correction of criminals is only treating the symptoms.

There is no influence, in many cases, predisposing to crime—except environment. The cost of crime is incalculable. It has been estimated that, as an average, it costs \$1500 to detect, prosecute and convict a felon. There is no way of estimating the total cost of crime; and it is well that such is the case, because it would undoubtedly stagger us by its immensity.

The Child Guidance movement holds out our greatest hope in properly directing childhood thoughts and actions. The majority of those committed to prisons were children delinquents in school. There is as great a difference in the mental capacities of children as there is in their physical appearance. This we must recognize.

The psychiatric make-up of an individual is of

great importance, especially in learning his emotional life. Individually, children vary greatly in their make-up, and they must be considered individually, in outlining corrective measures.

The Juvenile Courts constitute the first outpost of society. There, the child is tried in terms of what he needs, rather than what he has done. It is in differentiating between a really delinquent subject and a person who has been the victim of questionable environmental conditions and lack of parental influence, that these courts are most useful and their number and influence must be increased.

Physicians should observe signs in behavior and attitude of children in their homes and schools, and should recognize the importance of measures to assure them of getting the care and study that they need. The clergy should also be able to help, although in this materialistic and practical age their influence seems to be waning.

In conclusion, Dr. O'Brien stated, once again, that correction by imprisonment is *treating the symptom*, the patient's action, and *not the cause* of his criminal act.

Dr. Fishman, of the New York State Department of Correction, on Welfare Island, the third speaker of the evening, stated that when a criminal reaches the penitentiary it is too late to adopt any corrective measures, as his character is by that time crystallized and unchangeable. Last year, 62% of inmates were found to be physically unfit to work. This group included victims of alcoholism, drug addicts, tuberculous patients, the blind, the deaf, the senile, the homosexuals and the insane. Crusaders, attempting zealous clean-ups, are often insufficiently informed regarding facts and lack adequate knowledge. For instance, the belief that narcotic addicts represent a large group of criminals, is essentially wrong. Gangsters and their like seldom use drugs, for addicts are not to be trusted. They are not of the vicious type they are sometimes represented to be, and they want only enough of the drug and then to be left alone. They are almost never cured, so antinarcotic crusades are a waste of time and money.

Anti-pistol crusades are also a waste of time and money, because a prohibitory law on pistols could not possibly be effective. It would be even less so that our national joke—the Eighteenth Amendment. The pistol, unlike the drug, is not consumable in the ordinary sense of the word, for one may last for many years. There are enough undercover machine shops in New York City alone to furnish guns for the criminals of the nation for many years. Imagine a law prohibiting the manufacture of fire-arms being effective in a country surrounded by international land boundaries and thousands of miles of coastline, as is ours.

Prison Riots have recently engaged our attention. In spite of all the newspapers and magazines containing—"first hand knowledge"—the causes still remain unknown. It is probably a coincidence that these riots occurred about the same time, since similar conditions in different prisons failed to cause any disturbance.

Is crime increasing? Statistics show that crime incidence is actually decreasing. The New York State Department of Correction, in 1916, showed an increase of 30% in criminals between the ages of 15 and 23, and this incidence continued until 1930.

In conclusion, Dr. Fishman stressed the point

that more time, energy and money should be spent to further Child Guidance movements, and less spent on useless reforms and false promises.

The papers were well received by an appreciative audience of more than 500. Discussion was engaged in by a number of those in the audience.

MERCER COUNTY

A. Dunbar Hutchinson, M.D., Reporter

The Mercer County Medical Society met in the Carteret Club on April 13, with President Wilbur presiding.

Dr. Arthur D. Kurtz, of the Orthopedic Department Jefferson Hospital, spoke on the subject: "The Foot—Its Relation to Bodily Disorders." His address was extremely practical, and covered the many conditions of both a specific and non-specific nature, arising from diseased structures in and about the feet.

Following a discussion, relating to pending legislation, the Secretary was instructed to convey the wishes of the society to the several Senators and Assemblymen.

Drs. Richard T. Buckley, A. William Blumberg and William K. McCandless, were regularly elected Associate Members.

The applications of Drs. F. D. Hunter, J. F. Kustrup, Arthur B. Light and Edward B. Mewborne, were read and referred to the Membership Committee.

Announcement of the death of Dr. Alexander Armstrong was made and its reading was followed by the appointment, by the President, of Drs. Sommer, Scammell and Adams, as a Special Resolutions Committee.

The Special Committee, composed of Drs. Ackley, Adams, and Zandt, submitted Resolutions on the death of Dr. Francis M. Arthur, which, after being read, were accepted. (See Obituary Department.)

Upon request, the Secretary read a portion of the report of the Judicial Council of the American Medical Association, dated April 2, 1932, page 1180, with reference to "Eligibility".

This meeting was one of the largest for the present year, and speaks well for the efforts of the Program Committee, in providing speakers of valued reputation.

In fact, so much interest is being displayed in the "scientific" portion of the program, that matters pertaining to society work receive scant consideration and associated enterprise in relation to other component societies, tending to bind for furtherance of organized energy, appears to be subsisting on past laurels—a mistake which the young licentiate must be made to see.

MIDDLESEX COUNTY

Medical Section Rutgers Club

J. H. Rowland, M.D., Secretary

The Annual Meeting of the Medical Section of Rutgers Club, which had been postponed from March, was held on Friday, April 15, at 9 p. m., in the Alumni House, Queen's Campus, Rutgers College, being called to order at 9:10 p. m., by Dr. Johnson. Those present were: Drs. Applegate, Brody, Cronk, Fagan, Gutmann, Haywood,

Howley, Johnson, Klein, Leonard, Merrill, McKiernan, Nafey, Rothschild, Rowland, Sherman, Voorhees and Walker.

Dr. Kler was elected a member of the Club. A motion was adopted that Dr. Saulsberry, who recently returned from California, where he was engaged in practice, be reinstated as a member of the society if he so desires.

Various topics of interest were discussed, including the June outing. For various reasons, it was decided that the Club should go to Dock Watch Hollow this year, instead of the usual outing at the shore.

A motion was made by Dr. Gutmann, and later passed, that a committee of 2 be appointed to ascertain the cost of an oxygen tent; Dr. Johnson appointed Drs. Gutmann and Haywood as such a committee, with instructions to report next month.

Another topic of discussion was the future conduct of meetings, with reference particularly to place of meeting and character of programs.

A motion made by Dr. Rothschild was passed—that a vote of thanks be given to the outgoing Chairman, Dr. Johnson, and the other officers and committees for the good work done during the past year.

There was a prolonged discussion on public health and child welfare, including immunization against diphtheria, with particular emphasis on the necessity for doing this and as to the best plan for carrying on the work to the advantage of all concerned. Dr. Johnson brought out what was desirable in the various phases of child welfare and public health programs.

Dr. Cronk spoke at length, considering the salary of various persons doing work along public health lines, the purpose of this work, the educational phase, preservation of health, and accomplishment of a low death rate. He also spoke of the necessity for coöperation of all physicians in the community, and emphasized the importance of diphtheria immunization. He said that the death rate in New Brunswick is 11.3, which is even lower than the rate for the entire state.

Dr. Johnson spoke of the work of the Visiting Nurses, and the fact that it is advisable for them to take blood pressure readings for patients not in a position to visit clinics or be attended by private physicians. Dr. Sherman expressed his desire that this work be carried on, and a motion was made and adopted that the visiting nurses be commended and advised to continue the good work that is being done.

Question came up concerning physicians being imposed upon with requests to purchase tickets of all kinds. This was considered a personal matter.

Report of the Treasurer indicated a balance on hand of \$199.45. A motion was made and passed that bills paid by the Treasurer be approved to date.

As the hour was getting late, light refreshments were served by the committee in charge, who were: Drs. McKiernan, Merrill, Karshmer and Fagan.

Dr. Nafey presented Dr. Toy's name as a possible member of the Club. This recommendation followed the usual procedure.

There being no other new business, the meeting proceeded to the election of officers for the ensuing year. Dr. Haywood, Chairman of the Nominating Committee, presented the following names: Chairman, Dr. Gutmann; Vice-Chairman,

Dr. Howley; Secretary and Treasurer, Dr. Rowland.

There being no further nominations, motion was made and passed that the report of the Nominating Committee be accepted, and the Secretary was instructed to cast a ballot for the election of the above named officers.

Dr. Johnson retired and turned the meeting over to the newly elected Chairman, Dr. Gutmann.

Discussion of public health relations was resumed, and valuable suggestions were presented for consideration by various members of the group. A motion was made and passed that a committee be appointed on public health relations, and Drs. Johnson, Cronk and Sherman were appointed.

There being no further business, the meeting adjourned on motion.

MONMOUTH COUNTY

Harold A. Kazmann, M.D., Reporter

The regular monthly meeting of the Monmouth County Medical Society was held at the Monmouth Memorial Hospital, Long Branch, on Wednesday evening, March 30, with Dr. Stanley Nichols presiding.

The following report of the Executive Committee was read and accepted: At the request of the Essex County Medical Society, the resolutions recently adopted by that society were read at the meeting. The resolutions covered the relative responsibilities of the lay Board of Directors and the Medical Staff in the management of a hospital. The Executive Committee approved of the resolutions in principle. It also recommended that the Essex County Medical Society submit the resolutions to the New Jersey State Medical Society for adoption and recommendation to the component county societies.

Communications and publications from the Maternity Center Association of New York were read and ordered sent to Dr. R. A. MacKenzie, Chairman of the Maternal Welfare Committee of this society.

Dr. Stanley Nichols called attention to the fact that under the state economy plan, the services of the District Health Officers is to be done away with. In the interest of public health, it was decided that letters be sent to our senator and assemblymen, requesting that they do all within their power to retain the district health officer in Monmouth County.

The paper of the evening, "Recent Advances in Treatment of Pneumonia with Special Reference to Oxygen and Serum Therapy", was given by Dr. C. Norman Plummer, of New York City. The paper was discussed by Drs. Prout, Wiener and Pons.

Dr. J. B. Morrison, Secretary of the Medical Society of New Jersey, and Dr. Henry O. Reik, Editor of our State Society Journal, were among our visitors, and both responded to requests to speak about State Society affairs.

MORRIS COUNTY

M. A. Curry, M.D., Reporter

A special meeting of the Morris County Medical Society was held at the State Hospital, Grey-stone Park, the evening of Thursday, April 21, at which President Krauss presided over an attendance of some 45 members and guests.

The purpose of the meeting was not of scientific but of economic importance to the general

practitioner in matters and things collateral to the profession in its stricter sense.

The speakers of the evening were Dr. Maurice T. Avidan, of the State Compensation Commission, and our ever-welcome State Society Secretary, Dr. J. Bennett Morrison, both of whom gave very interesting and enlightening talks on economic problems and political measures which demand the serious consideration of every practitioner. The discourses emphasized many very important methods and procedures on the part of the physician, if he is to avoid delay and complications in the collection of bills on compensation cases. Authorization from the employer for treating the patient was stressed as of initial importance, and then the *itemizing of the various services rendered*, on the bill, instead of rendering a bill for a lump sum, without particulars; also, that these bills should be sent to the responsible employer and followed up through that source rather than to deal with the insurance carrier. Familiarity with the compensation law and its provisions, was also stressed as of first line importance to the physician handling compensation cases so that he may be acquainted with the procedure and necessity of making proper reports.

Assemblywoman, Dr. Julia C. Kitchler, also gave a résumé of various pending bills affecting the medical profession and discussed them with Dr. Morrison for the benefit of those present.

The interest aroused by the stirring addresses of the speakers on the problems so directly affecting medical men was manifested in the discussion which was engaged in by Drs. Gibbs, Ward, Frost, Sherman, Farrow and Curry.

On pending bills, A. 72 to permit injured persons, under the Workmen's Compensation Laws, to name their own physicians, and on A. 490 which allows liens in favor of physicians in personal injury accidents, to secure to such physicians payment for medical aid rendered to injured persons, unanimous action was taken favoring the passing of these bills by the Legislature.

After a very interesting and profitable formal session, adjournment was taken to the cafeteria where refreshments were enjoyed, by invitation of Superintendent Curry of the institution.

PASSAIC COUNTY

Wayne W. Hall, M.D., Secretary

The regular meeting of the Passaic County Medical Society was held at the Valley View Sanatorium, Paterson, April 14, at 8.30 p. m., with Dr. Roemer presiding.

The first paper was presented by Dr. Thomas Manly, a member of this society and Assemblyman from Passaic County, on "Medical Legislation, 1932".

The speaker discussed briefly Bills of particular interest to physicians that have been introduced from time to time. His paper seemed to notably A-490, the "Doctors' Lien Bill", introduced by himself; (heretofore, physicians have been paid, if at all, lastly, and Dr. Manly is making an effort to rectify this injustice); A-334, making it possible for a student of chiropractic, who was drawn into the World War while yet a student, to secure a license as a chiropractor, even though he did not finish his course; also a Compensation Bill, A-72, making it possible for the patient to choose his own physician, although the insurance carrier may send its physician for consultation.

Dr. Manly urged the medical profession to take greater interest in various bills that are introduced from time to time. His paper seemed to stimulate a great deal of thought and was actively discussed. During the discussion, Dr. Andrew F. McBride, Chairman of the Board of Trustees of the State Society, urged those present to communicate directly with our home legislators. Dr. J. B. Morrison and Dr. H. O. Reik advised us to familiarize ourselves with the compensation laws, emphasizing the importance of dealing directly with the employer, and not with the insurance carrier.

The Scientific Program consisted of a paper on "Insulin in the Treatment of Tuberculosis", by Dr. Frederick M. Allen, Director of the Physiatric Institute, at Morristown. Dr. Allen emphasized the importance of maintaining the nutrition in tuberculosis. He cited cases to show that insulin stimulated the patient's appetite. He stated, further, that patients with a normal temperature respond better; while those with a febrile course and great intoxication respond poorly and, he stated that children of poor nutrition, suspicious family history, and tuberculous contact, may be given insulin to their great advantage in building up their resistance.

Dr. J. S. Edlin, Director of the Tuberculosis Clinic, New York Polyclinic Hospital, presented x-ray plates of patients treated by Dr. Allen, and discussed points in the latter's paper.

Drs. Hagen, Todd, and Douglass discussed the paper.

The following amendment to the By-Laws was presented and read by Dr. W. W. Hall:

"Be It Resolved, That a physician licensed to practice in this state, of good moral character, endorsed by 2 members of this society, and in active practice in this county for 6 months or less, may apply for Junior Membership. This membership will be free for a period not exceeding 1 year from the date of his application. It will be the privilege of a Junior Member to attend all meetings of the society, receive the State Medical Society Journal, and the notices of the regular meetings, and to participate in discussions of any papers at the regular meetings; but not to vote or act as a member of a committee or a delegate. At the expiration of 1 year the Junior Member may apply for regular membership in this society."

Dr. O. R. Hagen seconded the motion, and it was decided to embody the suggested amendment in the notices of the next regular meeting and present it for final vote at that time.

A standing vote of thanks was extended to Drs. Allen, Edlin, and Manly.

A collation followed adjournment.

SOMERSET COUNTY

J. L. Young, M.D., Reporter

The regular meeting of the Somerset County Medical Society was held at the Somerset Hospital April 14, at 8.30 p. m., with Dr. Meigh, the President in the chair.

Minutes of last meeting were read and approved.

The following members were present: Drs. Ely, Stillwell, Hegeman, Piggott, Lawton, McConaughy, Renner, Young, Benjamin Borow, Lewis Borow, Levy, Craig, Smalley, Husted, Allis, Barbour, Pogoloff and Lovejoy.

A plan for "proper crediting and control of specialism and specialists" by the State Medical Society was read by the Secretary. Motion was

made, seconded and adopted, that we support this plan.

Motion made by Dr. Ely, that president appoint committee to arrange a meeting for discussion of economic problems, was adopted. Following members appointed by president on this committee; Ely, Sferra, Hegeman, Allis.

After meeting there was a showing of films demonstrating "spinal anesthesia".

Following, Dr. Thomas M. Morris, of Plainfield, read an interesting paper on "Spinal Anesthesia". Dr. Benjamin Borow gave discussion afterward.

UNION COUNTY

Russell A. Shirreffs, M.D., Reporter

A regular meeting of the Union County Medical Society was held at Muhlenberg Hospital, Plainfield, on the evening of April 13, with Dr. Emil Stein presiding. A welcome guest was Dr. C. C. Beling, District Councilor, who briefly addressed the meeting.

Dr. Elmer Weigel spoke on "Un-united Fracture of Hip, Treated by Bonegraft" and illustrated his points by x-ray pictures. "Fatal Surgical Complications of Influenza" was the subject talked of by Dr. Thomas M. Morris. "Traumatic Aphasia and Air Injections", by Dr. Fitch; "Blindness Following the Use of Optochin in Pneumococcus Meningitis", by Dr. Fred Lathrop; a "Résumé of Treatment of Acute Infantile Paralysis in the Recent Epidemic", by Drs. L. Leggett and H. Johnson; and Dr. Corbusier's presentation of a moving picture demonstrating muscle reëducation for the victims of infantile paralysis; completed the program.

Drs. T. A. Ford, W. H. Kelly and Cedric C. Carpenter, of Summit; and Dr. Milton Lilien, of Hillside; were unanimously elected to membership. Also elected were the following delegates and alternates to the State Medical Society meeting at Atlantic City, June 15-17, 1932:

Delegates: Drs. Joseph B. Harrison, H. V. Hubbard, Edward S. Krans, Thomas M. Morris, Stanton Davis, John Rannels, Harry H. Bowles, George Orton, George Laird, Charles H. Schlichter, Stephen T. Quinn, George Knauer, Emil Stein, Isadore Stein.

Alternates: Drs. Fred Lathrop, James G. Boyes, A. F. Van Horn, Nathaniel Stanton, Maynard Bensley, E. W. Lance, Watson B. Morris, Frank Williams, Harry Bloch, Thomas Walsh, A. S. V. Giglio, L. H. Leggett, Joseph Dennin, Jack Blumberg.

Obituaries

ARMSTRONG, Samuel E., aged 78 years, died at his home, 51 Elliot Place, Rutherford, on Saturday, April 23, 1932, after an illness of one week, following upon a stroke of paralysis. He had practiced medicine in Rutherford more than 40 years, and 2 years ago retired from active practice.

Dr. Armstrong, a Democrat, was appointed county physician by a Republican Board of Freeholders in 1912. He was the first county physician to be appointed. He served on the Rutherford Borough Council from 1907 until 1910 under Mayor Andrew Brinkerhoff.

Dr. Armstrong was born in New York, moving first to Passaic and then to Rutherford. He was a member of Bolling Spring Lodge, F. & A. M. He is survived by his wife, 10 children, 2 sisters and a brother.

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DETACHMENT OF THE RETINA; THE GUIST OPERATION

BENJAMIN B. ADELMAN, M.D.,
Newark, N. J.

Definition: By detachment of the retina we mean a separation or cleavage of the 2 retinal layers, so that the pigmented epithelium remains adherent to the choroid, and the inner retinal strata of cells and fibers are separated therefrom. Various pathologic processes may account for detachment, such as: effusion of serum, blood or pus; tumor; contraction of fibrous bands; presence of a foreign body or parasite. Evans, in 1929, found that detachment was the cause in 4% of all cases of blindness. In 1722, a fairly accurate description of retinal detachment was given by Saint Yves, who confused it, however, with *musces volantes*. Ware and Wardrop recognized the anatomic conditions, and from then on many ophthalmologists investigated the condition and studied it from etiologic and pathologic points of view. Ware was the first to state that it could probably be relieved by surgical procedures. To mention a few of the varied types of surgical steps taken: Norden-son aspirated the sub-retinal fluid; permanent drainage of the sub-retinal fluid was advised by De Wecker; Galezowski sutured the retina to the sclera; Deutschmann advised division of the vitreous strands and through-and-through puncture of the sclera; Mueller resected the sclera; and, Meller practiced choroidodialysis. Many cauterized the sclera with varying success. An index of the success of these differ-

ent operations is that most ophthalmologists, both past and present, practiced referring their patients to their best friends.

Study of the histopathology of detached retina, except where due to tumor, diabetes, cysticercus, or nephritis, has followed along certain lines. The theories most often discussed are: Leber's theory of vitreous strands, with retraction causing detachment; and his later theory, of an inflammatory pre-retinal condition. The underlying basis of Gonin's operation is an elaboration of Leber's theory, even though Leber felt that the original cause was an exudate from a pre-retinitis causing adhesions and a consequent drag of the vitreous on the diseased retina, resulting in a hole; while Gonin differed from Leber in emphasizing an equatorial choroiditis as the primary lesion. The part that vitreous bands play in effecting detachment is undoubted; just as the slit-lamp has proved that vitreous prolapse into the anterior chamber is almost a regular occurrence after needling a secondary cataract, so it can reveal strands running posteriorly through the vitreous. It appears that retinal detachments are found more frequently after discission than after extraction, and that injury to the vitreous must be avoided at all costs. Traction plays the greatest part in the production of a detachment of the vitreous, and retinal detachment may occur after the 2 structures are adherent. Sourdille expressed the opinion that the detachment is due to a weakness of the adhesion between the pigment epithelial layer and the remainder of the retina, and the presence of a fluid between them. Leber and Vogt hold to the opinion that detachment is caused by the production of a hole in the

retina, and that whatever causes the tear is the initial and the most important etiologic factor.

Gonin based the success of his operation upon the fact that searing and closing of the hole will cure the detachment; feeling that the detachment is caused by a passing of fluid through the retinal tear and dissection of the retina from the pigment layer. He compares the retinal vitreous with a squeezed lemon, the cellular part of which has not been liquefied, but simply deprived of its juice; his views being an elaboration of Leber's theory.

Another theory as to the cause of detachment is that of cystoid degeneration of the retina. It may be *a propos* at this point to discuss this theory thoroughly because it is upon this groundwork that Guist has based his operative procedure. Pressburg, in 1929, found that cystoid changes could occur at any age, that they began in the inner, granular layer, and that they were so peripheral that only once did they appear more than 7 mm. from the ora serrata. He considered that the pull of the vitreous on this area of the retina contributed to cyst and hole formation. If, then, this condition is present, which may predispose to retinal separation, and can occur at any age, it may account for such an accident not only in the myopic but also in the senile eye.

Guist holds, in following the cystoid degeneration theory, that the tears occur in 2 distinct places in the retina; one, at the ora serrata, or at a distance of 8:10 mm. behind the ora serrata; the other, at the fovea. The causative factors in producing those holes are retinal cysts, or, cystic degeneration of the retina in these 2 elective places. Those areas can be seen anatomically and histologically. The cystic degeneration makes that part of the retina a weak place, and, when an injury or stretching of myopia occurs, the cyst becomes transformed into a hole, the retina balloons out, and the vitreous passes through. Magitot states that the sub-retinal fluid contains a large amount of albumin, and it cannot be vitreous. At this point, may I mention the fact that the recent work, of Duke Elder and others, on the intra-ocular fluids, throws considerable doubt on our past knowl-

edge of the composition of the vitreous. Quoting Dr. Elder, who has investigated with the ultra-microscope: "The apparent texture is an optical illusion, the basis of which is determined by the colloid aggregates. Although they are too small to be rendered actually visible, they may be evident when large numbers of them become arranged in a true perpendicular to the incident light." He states that it is difficult to distinguish true structure from optical effect. The findings of histologists "in their preparations bear only a distant resemblance to the living tissues of the vitreous", as Koby has stated, and there is just as great a dissimilarity between the slit-lamp and ultra-microscopic appearances. When fresh vitreous is examined by the ultra-microscope it appears optically empty. After several hours, minute fibrils appear, such as are seen in soap-jells and other colloids. Under certain conditions these fibrillae may break up into granular form or may coalesce, giving the appearance of fibers visible by slit-lamp illumination. Summarizing the different theories as to the pathogenesis, as in glaucoma, we find that there are many things to be considered. The finding of the hole in almost every detachment gives the fact a very great importance in pathogenesis. Vogt has stated that "the results of operation produce the proof that the retinal hole is the cause of spontaneous detachment". The presence of vitreous bands, detachments of vitreous, liquefaction of vitreous, cystoid degeneration of retina, trauma, and other causes must be correlated and thoroughly studied to arrive at any scientific and proper conclusion.

Treatment. In the past several years Gonin's operation has received the attention of ophthalmologists throughout the world. In the hands of Gonin and his associates it seemed to promise a great deal, and he held forth these dicta: (1) Cure for detachments seen early is complete and permanent; (2) In other cases, those of several weeks or months of duration, restoration of vision is not always complete; the tear must be completely closed or relapse occurs. Recurrence is due to new hole formation. During the past few years many articles have been written about this operation, but I feel that the percentage of cures has not been so great as Gonin and his

co-workers had claimed. Amsler states that only those cases of detachment which are seen immediately after onset, and operated on at that time, have a high percentage of cures. Schoenberg, in the November issue of *Archives of Ophthalmology*, gave the following conclusions: (1) The Gonin method of treating a retinal detachment is, and will remain for a considerable length of time, on probation.

(2) In selected cases this method gives surprisingly good results.

(3) The main difficulties to be thoroughly mastered by the surgeon are: (a) selection of suitable cases, (b) carrying out of proper technic.

(4) Early operation increases the chances of recovery.

(5) The patient's thorough coöperation must be secured.

Igersheimer considers the Gonin operation a decided step forward, but feels the need to define more clearly its limitations and possibilities. Lindner feels likewise. Relapse and inability to close the tear have been reported by many men.

Guist, working in Vienna, was struck by the lessening success of the Gonin operation during the past few years, and he found that the retinal damage in the neighborhood of the cautery frequently led to relapses that were, at times, accompanied by the formation of holes larger than the original ones. He found that cauterizations of the new holes were mostly without success, and on repeated ignipuncture, Guist and his co-workers found bleedings into the vitreous body. Lindner feels that these hemorrhages are due to the existing hyperemia of the tissues in the region of the first ignipuncture. Upon examination of a section from an enucleated eye which had been lost through an intra-ocular inflammation, it was noted that the hole, or rupture of the retina, had become glued to the choroid along its edges, and the vitreous body between the cleft and the choroid was loaded with polynuclear leukocytes and some fibrin, and, that some new vessels were formed in the neighborhood of the adherent spot.

This inflammatory reaction causing adhesion of the retina to the choroid brought Guist

to the point where he thought that a chemical action, causing a fibrinous exudative reaction, would bring about the desired results. KOH causes this type of reaction, and it dissolves collagenous connective tissue, which is the cause of the ensuing inflammation. He experimented on animals for determination of the time required to cause an exudate, always keeping in mind that he did not want to destroy or injure the retina. Through a scleral trephine, being careful not to go through the choroid, he applied, for varying periods, 1-3-5 seconds, the stick of KOH to the trephined area, and then neutralized with $\frac{1}{2}\%$ of acetic acid. He then perforated the choroid with a blunt probe to drain the sub-retinal fluid. With the ophthalmoscope one could, sometimes immediately, detect a greyish-white area resembling a fresh choroiditic spot; this area increased in size for a few days; the vitreous showed dust-like opacities; and 12 days after the operation he enucleated that rabbit's eye and studied its sections histologically to ascertain the effect of the cauterization. One section, from an area which had application of the KOH for 5 seconds, showed an adhesion of the retina and choroid, but the surrounding retina became thin, in some cases exceedingly thin, so that danger of rupture was great. A "5 second exposure" in the region of the vortex vein showed no occlusion of the vein, and the vessel wall appeared normal.

In the 3 seconds' application of KOH results were better, but in the area about the cauterized scar the retina was still thin; adhesion of the healthy retina and choroid was wide.

With the 1 second exposure, the results were gratifying. The sections showed an adhesion over a wide area between the choroid and the retina. There was destruction of the inner and outer granular layers, but the ganglion cell and nerve fiber layers remained intact. The appearance was that of a choroido-retinitic spot. The ganglion cells, the glia cells, as well as the nerve fiber layers, were well preserved, and the choroid and super-choroid tissue showed scarring. The margin of the cauterized area showed a wide-spread adhesion to the retina without thinning of the retina; in fact, in some of the sections, at the site of reaction,

there were evidences of new vessel formation.

At this point it may be proper to compare the histopathologic side, as reported by Schoenberg, following the Gonin method of searing the retina. Schoenberg examined rabbit eyes after searing with a hot cautery tip, and found that a hole was burrowed through the sclera, choroid and retina, and entered the vitreous. Surrounding the hole in the choroid there was a white ring, around which the pigment had more or less disappeared. This pigment wandered in a centrifugal direction and accumulated in patches or rings around the pale zone. The retina showed a similar whitish-gray zone surrounding the hole. The vitreous was coagulated in the vicinity of the hole, and part of it prolapsed into the opening made by the cautery; gradually the hole closed and the vitreous became adherent to the cauterized area.

The importance of these observations, according to Schoenberg, lies in the light they throw on the entire idea behind the Gonin operation. If the treatment is to succeed, one has to achieve the following results: (1) Produce an inflammatory reaction of the choroid; (2) anchor the retina to the underlying choroid; (3) cauterize the vitreous so as to obtain a plug that will obstruct the hole in the retina, prolapse into the opening and become adherent, at least in part, to the edge of the hole, and later to the tissue that grows over the opening. This latter may combat the desired result by producing traction, and that fact, I hold, causes many of the failures.

Guist then reports that on a patient with an old detachment, and no light perception, he performed the operation; and he found no untoward results, but, of course, no improvement. Then he performed the operation on a patient with a detachment and a myopia of 15 diopters. That night, the patient contracted bronchopneumonia, became delirious, and for several days was quite ill. However, he recovered from the pulmonary condition, and 5 weeks later was able to read 20/50 and Jaeger No. 1, and had a normal field for color and form. Examination with the ophthalmoscope at the end of this time showed a retinoblastoma with a migration of pigment. The

splendid results in this instance encouraged him to perform the same operation on all patients with retinal detachment, and, through a period of approximately a year that he has been performing this operation, Guist has had very encouraging results.

I have personally seen a number of the patients who have been operated upon by Guist, and can vouch for the definite improvement, and for what, to all intents and purposes, would constitute a cure; in other words, they have definitely improved acuity, visual field for form and color, and re-attachment of the retina, 6 months after the operation.

It may be permissible now to mention the case of an American physician who had a traumatic detachment of 2 years' duration, with vision reduced to finger movements only; except for a small area in which he had a remnant of a form field. After this operation was performed, he had 20/50 vision for distance and Jaeger No. 4 for near work. I was in constant touch with this physician for several months following the operation, and during that entire time, he told me, his vision was definitely improving. With permission, I quote a few excerpts from one of his recent letters:

"I most certainly consider the operation, thus far, an absolute success. Vision has been, undoubtedly, greatly improved since the operation, though not exactly normal. The field has remained constant, which is practically normal. There is a contraction for perception of blue in the upper nasal quadrant only. Prior to the operation I had complete loss of vision of the entire upper field, and could not see even the head-lines of the paper.

Now, the field is practically normal. I can read quite clearly the type as printed by this machine—and with straining I can read the ordinary news-paper print, such as the 'phone numbers as printed on this letter head. Close vision, thus, is excellent. Distant vision, with the aid of lenses, is also quite good, but not quite so accurate in details. But, from a practical standpoint, I could drive a car, if necessary, with this impaired eye, which is something I could not even attempt before. In the matter of operating, I could, if necessary, easily complete an appendectomy, with this

injured eye alone, should I get something in the good one. Binocular vision, which was absent prior to the operation, is now normal.

I was examined in New York and here at home, and both doctors stated that if they did not know that I formerly had a detachment, they would not believe it, as now, even the puncture holes are invisible. My last refraction examination, 1 week ago, showed: O. D.—0.75 D. Sph.—1.00 D. Cyl., axis 10°, Prism 3d Base up. V. = 20/50.

I consider this an excellent result, when one considers that the detachment was present for nearly 2 years before operation.

There is still a small sinus at the external canthus, where the external canthotomy was done; possibly due to a buried silk suture. Otherwise, the eye, externally, appears normal."

I have seen and examined several patients that had old detachments—and when I say old detachments, I mean periods from 6 months to 2 years—and in each saw definite improvement following the operation. There were several patients who had been previously operated upon by Gonin, without any improvement, but who showed definite improvement after the Guist operation; one, particularly, who advanced from finger movements to 20/40 and Jaeger No. 3.

Of course, a true valuation of this type of operation cannot be formed until a long series of cases have been studied. Guist has claimed, in a personal talk with me, that his cures range from 65% to 91%; stating that if he chooses his patients as Gonin does, he gets 91% of cures, but that if he operates upon every patient, regardless of duration and type of detachment, he gets only 65% of cures.

Lindner is not quite so sanguine about the percentages. However, as I said before, the true valuation cannot be determined for some time to come. The operation does not remove the cause of detachment, but then, as in glaucoma, the cause has not yet been definitely determined.

Technic. The hole, or holes, are first thoroughly localized. Guist uses a giant Gull-

strand ophthalmoscope, but many men have used other methods with equal success. Meek, of New York, has worked out a very simple method of localization with a ring that attaches to the limbus. A plan, or drawing, of the fundus is made. The eye is then cocaine-ized, and complete akinesis is done. The conjunctiva is dissected back, and, if the tear lies under a muscle, that muscle is resected and drawn out of the way. The sclera is cleaned and a dry field obtained. If there is any bleeding, strychnon gauze is applied until the bleeding ceases. Care should be taken not to work over the course of a vortex vein or a ciliary nerve. Exact localization of the tear should be marked out on the sclera with superficial thermocautery, or with India ink. Then a trephine, 1.5 or 1.75 mm., very sharp, is gently rotated, and the tissue teased out until the choroid is exposed; being careful not to cause hemorrhage nor to perforate the choroid. After all trephines have been made, a small stick of paraffin-covered KOH is applied; the wax tip should not be cut off until just the moment before the KOH is to be applied, because KOH is very hygroscopic. The field is then thoroughly dried, and KOH applied for $\frac{1}{2}$ second, and immediately neutralized by applicators soaked in $\frac{1}{2}\%$ acetic acid, and the field is then thoroughly washed with salt solution.

Touch—neutralize—and wash, is the procedure for each hole; then dry. A blunt probe is then gently pushed through a few trephine holes and through the choroid to permit escape of sub-retinal fluid. The muscle is then sutured, conjunctiva sewed, both eyes bandaged, and patient sent to bed.

After several days the bandage is removed from the good eye. After 8 days, the other bandage is removed, and a pair of blank frames, with small holes in the middle of the blank, are worn so the patient looks directly through the holes. The sides of the frames are covered with celluloid. After absolute quiet and rest for several weeks, the patient is discharged, but many follow-up examinations have to be made.

CARE OF THE PATIENT BEFORE, DURING AND AFTER INDUCTION OF SPINAL ANESTHESIA

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With the trail of spinal anesthesia blazed so thoroughly by men like Babcock, Labot and Pitkin, it goes without saying that the details of technic have been emphasized well enough to dispense with further discussion along those lines. One fact, however, stands out strikingly in the work of each of the pioneers in subarachnoid block. Each has perfected his own technic by a special study of his chosen anesthetic and, whatever the reason might have been for the original adoption of that particular drug, it is obvious that each has continued the study and use of that one solution; consequently, he has studied its properties to the minutest detail, and after long periods of observation has settled upon a most desirable, to say nothing of a most efficient, technic.

Herein lies the secret of successful spinal anesthesia. The results obtained are in direct proportion to the knowledge that one has acquired regarding the properties of the drug employed. Certain it is that Pitkin enjoys as much success with spinocaine as Babcock with stovaine and vice-versa. But the man starting out to make use of spinal anesthesia should not endeavor to switch from one anesthetic solution to another in the hope of finding the one that will fulfill all his requirements under all circumstances, for no such solution covers those possibilities. A detailed knowledge of the properties of whichever solution is adopted offers not only the greatest number of possibilities of success, but the fewest possibilities of danger. The failures, deaths, (and these are surprisingly few) and ill effects, that result from spinal anesthesia are due solely to some one of the following reasons:

- (1) Insufficient acquaintance with the properties of the drug used.
- (2) Confusing the technic best suited to one solution with that of another.

(3) Selection of the wrong intervertebral space for injection.

(4) Improper mixture of drug with cerebrospinal fluid, in vivo and vitro.

(5) Sloppy technic through awkward manipulation of needles or bungling lumbar puncture and drainage of cerebrospinal fluid.

PREPARATION OF THE PATIENT

Before operation, an explanation of the method by which the anesthetic will be administered is advisable because important to the patient's peace of mind. Particularly is this true of spinal anesthesia. The procedure of lumbar puncture should be explained to the patient sometime before the operation. This explanation should be followed by continued assurance, not only by the surgeon but by all those coming into professional contact with the patient, that the particular part of the body to be operated upon will be anesthetized, and that, although still awake, he will suffer no pain whatever.

In selecting the type of anesthesia for a patient, the surgeon should determine first in his own mind whether general or regional anesthesia is to be preferred. The indications for either are now quite definitely established. Having once decided that question, he should inform the patient and then, regardless of circumstances, refuse to change because of the patient's preference. Rather than change to general anesthesia, if regional anesthesia is indicated, the surgeon should explain his reasons for selecting regional anesthesia in this particular case and the benefits that will accrue from its use. Patients are not only enlightened but are mentally comforted and prepared to receive spinal anesthesia without alarm or excitement, if thus informed.

From this point on, continuously, assurance should be given the patient that he will feel no pain. The patient's apprehension can be partly overcome by a thorough explanation of the procedure, and what remains can be dispelled by any skillful regional anesthetist who will soothe the patient, and who certainly will avoid annoying him by questions about pain while the operation is in progress.

If the patient wishes to sleep, he should be permitted to do so. He should not be fre-

quently troubled by questions such as: "How do you feel?"—"Does this hurt you?" Such questions keep the mind active and alert for the slightest discomfort that may be unavoidable.

Comforting the patient physically as well as mentally is essential, and observance of the following suggestions will assist in obtaining the maximum of comfort.

(1) Sufficient and proper distribution of the padding on the stretcher.

(2) Ample pillowing of the shoulder braces, because of extreme pressure on shoulders while in the Trendelenberg position.

(3) Cold compresses to the head, face and neck to relieve the cerebral congestion induced by prolonged reverse Fowler's position.

(4) Sips of water, small pieces of cracked ice dissolved on the patient's tongue, from time to time.

(5) Holding the nostrils closed and breathing deeply through the mouth several times, to overcome the nausea caused, occasionally, by packing off the small bowel against the stomach and diaphragm.

(6) A few layers of gauze over the eyes to shut off the glare from strong overhead lights; and to prevent a too liberal observation of the strange movements and activities in the operating room. Avoid suggestions that might promote fear, nervousness, restlessness or apprehension on the part of the patient.

(7) Placing cotton in the ears of patients who seem too alert and too readily unnerved by operating room conversation.

(8) Holding gauze, moistened with aromatic spirits of ammonia, over the nostrils to overcome the characteristic operating room odor. Frequently, patients complain of nausea when the odor of pus suddenly becomes noticeable after operation upon a pelvic or intestinal region abscess.

Children, particularly those undergoing orthopedic operations, have been made contented by permitting them to have sips of orange juice through a straw or glass tube; something to divert the mind and to remove anxiety that naturally arises when they are brought to the operating room. Similarly, I have given whiskey to old men during the course of an operation, and noted that, in addition to the im-

mediate calming effect, it produced a temporary stimulation of the vital centers.

The operator and his assistants have an important duty to perform in maintaining the patient's mental poise and freedom from apprehension. It is to be remembered that the patient is not anesthetized, as a rule, from the lower chest up, and is, therefore, not to be hurt by careless manipulation of his hands or arms while on the stretcher. Towel clips, wrist cuffs and other necessary attachments should be applied with precision and fore-thought so as not to cause the patient any discomfort whatever. Assistants should not lean against the patient's arms and chest, as is too often done to patients under general anesthesia. And, the most common violation of rules regarding patients under spinal anesthesia, is to tug and pull carelessly at retractors. Such a procedure is unnecessary, and can be avoided by a firm and gentle hand on the retractors. The surgeon himself can set the pace for silence, self-restraint, quietness and gentleness, and the operating room staff is bound to follow his example.

Surgeons should have sufficient confidence in themselves, if they administer the spinal anesthetic, or in their chosen anesthetist and the substance in solution being used, to make it unnecessary to keep reminding the patient who is submitting to the operation, that no pain will be felt; such reminding is unquestionably detrimental to the patient's mental poise.

There is no surer sign than the patient's facial expression, if pain is felt; nor will the patient fail to yell instantly if the anesthesia is ineffectual. If properly prepared by preliminary administration of morphine and atropine before the operation, the patient will be perfectly relaxed and quiet. I have occasionally tried using bromides or amytal as substitutes for the morphine-atropine combination but the results proved unsatisfactory, and I am now quite satisfied, from my own personal experience, that morphine and atropine, given $\frac{1}{2}$ hr. before the anticipated operation, fulfill perfectly all the requirements of the preparatory stages of an operation under spinal anesthesia. I have, on several occasions (where the preliminary hypodermic has been omitted),

seen a patient brought to the operating room dripping-wet with perspiration due to nervousness and fear. If successful subarachnoid block anesthesia is to be obtained, the patient, I repeat, must have the maximum of quiet and physical comfort that circumstances will allow. Certainly, a patient with sweat pouring freely from every portion of the body, because of nervousness, is not comfortable; and, an uncomfortable patient becomes restless; and restlessness produces irritability—the principal factor to be overcome, for the success of regional anesthesia.

The various methods of administration of spinal anesthesia have been described in utmost detail, relating to the size of the needle; type of syringe; variety of solution and so forth (I shall comment further upon these factors) but little is said about the follow-up care.

POSTOPERATIVE CARE IN RELATION TO SPINAL ANESTHESIA

The average time that elapses between injecting the anesthetic and the drop in blood pressure, is 20-30 minutes; and that is the time during which the most scrupulous observation of the patient's blood pressure should be made, and when, in all suspicious cases (particularly those of low pressure), ephedrine or adrenalin should be ready for immediate use if required. In an individual of 160 systolic and 110 diastolic to begin with, there may occur a systolic drop of 30-40 points, which is inconsequential; whereas, on the other hand, the patient with a pressure of 100/60 may suffer a systolic drop of 60 points; and for this latter type of patient (meaning one starting with low systolic pressure), there should be ample preparation to offset the effects of a possibly larger drop. Ephedrine or adrenalin should be given, without fail, before the spinal anesthetic is administered and should, from then on, be kept loaded in a syringe for immediate use. There is little or no danger after the first half-hour, as regards blood pressure, providing the position is not too suddenly altered from Trendelenberg to dorsal. Here let me add, parenthetically, that adrenalin has proved much more effective than ephedrine in lifting a suddenly dropped

blood pressure. Furthermore, I have never found it necessary to give an intravenous injection of either, for intramuscular injection of adrenalin has been used with entire satisfaction. I do not see why pituitrin would not be just as good a drug and, if a patient ever presents himself, for whom maintenance of pressure within safe limits becomes difficult, I shall have no hesitancy in using that drug, for, its ability to contract unstriated, involuntary, muscle fibres, should be of great benefit; because I fully believe that those patients who suffer what is loosely called *shock*, supposedly due to the depressing effects of the spinal anesthetic acting on vital centers, are in reality suffering from cerebral anemia caused by dilatation of the splanchnic vessels and complete relaxation of the entire musculature, voluntary and involuntary. For example: For an operation requiring 30 minutes, sufficient anesthetic has been given to carry the patient for 1½ hours. He is suddenly changed from a moderate Trendelenberg position, at the end of 30 minutes, to a perfectly level stretcher. Immediately, his circulation floods the viscera and vessels of the lower extremities, and, as a consequence, the patient goes into collapse as a result of the anemia of the brain thus produced.

This brings up an important subject related to postoperative care of the spinal anesthesia patient—that is, the Trendelenberg position on a stretcher. I am convinced that 2 patients of mine were thrown on the brink of disaster by having their position changed too soon (40 minutes), from the Trendelenberg position to the stretcher-level, while being transferred to their beds. This source of danger can now be overcome by use of the Furness stretcher.

It has become a steadfast rule in surgical nursing to prepare the so-called "ether bed". But no less emphasis should be laid on the necessity for fixing a postoperative "spinal bed". Spinal anesthesia is now well enough established in all progressive hospitals (particularly in teaching institutions) to have a routine spinal anesthesia bed prepared immediately after the patient is sent to the operating room. This preparation should include: (1) True Trendelenberg position (elevation of the foot of the bed at least 5 notches). (2)

At least 3 hot water bottles. (3) Ice cap at head of bed to avoid headaches from prolonged cerebral congestion due to Trendelenberg position. (4) Pillow at head of bed. (5) Care in placing hot water bottles next to areas still under the effects of anesthesia.

A satisfactory postoperative routine for my patients has been: (1) Hypodermoclysis of normal salt solution—1000 c.c.

(2) Trendelenberg position for 2 hours after arriving from operating room; then leveling the bed for 1 hour; then Fowler's position, in drainage cases.

(3) Morphine sulphate—gr. $\frac{1}{4}$; with atropine sulphate—gr. $\frac{1}{150}$; hypodermically every 6 hours, p. r. n.

(4) Ice cap to head.

(5) Catheterize every 8 hours, p. r. n. Too frequently these patients do not realize that they have a distended bladder, or do not have the ability to contract their muscles and empty the bladder.

(6) External heat.

(7) Liquids, provided the surgical procedure did not involve the upper intestinal tract or stomach.

The purpose of this paper has been to record some additional observations regarding the preoperative and postoperative care of patients treated under spinal anesthesia, and then to give some consideration to use of the French preparation, *neocaine*. When this preparation has failed, it has been because the operator asked more of it than its chemical properties could offer, or it has been clumsily handled. It has given more than good results in all cases where the technic was properly executed.

It has best served my purpose to inject a mixture of 10-15 cgm. neocaine, thoroughly dissolved in 3-4 c.c. of cerebrospinal fluid, into the second lumbar interspace without expansion by barbotage. Furthermore, I always make my lumbar punctures with the patient on his side, and it makes no difference which side. Immediately after injection, the patient is placed in moderate Trendelenberg position. What can be simpler? These are its advantages:

(1) Dose of drug can be measured with absolute certainty; 6-18 cgm., depending upon

the weight, age, general physical condition, and length of operation.

(2) Anesthesia is almost instantaneous.

(3) Elimination of expansion by barbotage saves: (a) time for the patient in the operating room; (b) blocking of spinal fluid flow by slight alteration of needle position in intervertebral space, by repeated withdrawals of cerebrospinal fluid and re-injections of mixture; (c) possibility of drug reaching points near medulla, because of keeping spine on level plane for a shorter period than required by repeated mixtures of barbotage.

(4) It causes little nausea and practically no vomiting.

(5) There are no postoperative headaches.

(6) Complete relaxation of structures distal to point of injection lasting from $1\frac{1}{4}$ to $1\frac{3}{4}$ hours, depending upon size of the dose.

(7) Speed with which the anesthetic is administered.

(8) Time of the anesthesia can be judged to a nicety by the adaptation of dosage, anywhere from $\frac{1}{2}$ to $1\frac{3}{4}$ hours.

(9) Large doses, if necessary, can be given with comparative safety if the pressure is watched, particularly during the first 20-30 minutes. I have given as high as 17 cgm. to a 61 years old male, for resection of the bowel, without ill effects.

NEOCAINE SUBARACHNOID BLOCK IN CHILDREN

Too little attention is paid to the variety of anesthetic administered to children, yet there are certain definite conditions which do not warrant general anesthesia in children; for example, low grade tuberculous infections, cardiac lesions, or a persistent thymus. Such patients lend themselves well to spinal anesthesia, but other types of children are also particularly suited for this variety of anesthesia; as for example, those suffering from inanition, improper feeding, tuberculosis of bones or joints, congenital deformities of the hip, or infantile paralysis. Orthopedic surgery finds in neocaine its *excelsior*.

My experience with spinal anesthesia in children has been restricted entirely to neocaine for the following reasons:

(1) The dose of the drug can be selected

to suit the size, weight and general condition of the patient.

(2) Duration of effect is proportionate to size of the dose.

(3) Neocain has little or no toxic effect when given in proper dose.

(4) Relaxation of the extremities is so complete as to render the patient particularly suitable to any operation from closed reduction of a congenital dislocation of the hip to an astragalectomy.

(5) There is practically no shock or fright. After the spinal tap has been made (which, incidentally, is felt for an instant and is not seen by the child, thereby reducing the element of fear a great deal) a screen is placed in front of the patient. From then on, he is permitted to have orange juice or water; is amused, or talked to by the anesthetist; and comes out of the operating room with practically no constitutional effects of the anesthesia or operation.

Most of the children I have observed under neocaine have been patients at the Betty Bacharach Home for Crippled Children, at Longport, New Jersey, and the orthopedic surgery was performed by Dr. A. M. Rechtman, whose attitude toward neocaine in children, I believe, is that of the highest regard and satisfaction, because of the complete muscular relaxation obtainable and avoidance of the attendant dangers of deep general anesthesia.

At no time during our work did the blood pressure drop to a point of discomfort or danger to any patient. We gaged the amount of anesthesia by the rule of 1 cgm. neocaine to 15 lb. body weight. If the operation was of short duration, sometimes a smaller quantity was given. Ephedrine-novocaine solution was given before the neocaine injection, in the dosage of 0.1 c.c. to 10 lb. body weight. Occasionally, when the ephedrine increased the pulse rate for a few moments, the child would have a feeling of restlessness and some anxiety, but these usually passed off in a few moments, leaving no ill effects.

When vomiting does occur (and this is the exception) cold compresses to the throat, or a small piece of ice on the tongue, usually gives relief.

In a few of the earlier cases, in which I

used neocaine, it was noticed that patients complained of a sensation of falling, and repeatedly they asked to be held for fear that they would fall. Whatever caused this phenomenon, I am not prepared to state, but increasing the reverse Fowler's position eliminated the complaint.

One point worthy of emphasis concerning neocaine subarachnoid block in children, is that the element of *fright* is not so great as with inhalation anesthesia.

ETIOLOGY AND TREATMENT OF ESSENTIAL PRURITUS*

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Discussion of the treatment of essential pruritus must be based primarily on a consideration of its varied etiology, because permanent relief can only be obtained by removal of the cause. The term "essential pruritus" is reserved for that condition of the skin in which there is apparently no antecedent or primary skin disease. It may be defined as a chronic sensory neurosis dependent upon an abnormal excitation of the tactile sense organs but apparently not related to any preceding organic changes in the skin. It should always be regarded as a *symptom* rather than a *clinical entity*. The diagnosis of essential pruritus can be readily made by the absence of any characteristic manifestations except those of a secondary character, such as scratch-marks, excoriations, lichenification, pigmentation, and pyogenic infections. The causes of essential pruritus are many, and a careful clinical, laboratory and psychiatric study should be made routinely instead of merely prescribing an anti-pruritic lotion.

The causes of essential pruritus may be divided into 3 main groups, which will facilitate the search among the many conditions which may cause itching.

(1) Systematic conditions: (a) hypo- and

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hyper-thyroidism; (b) lymphogenic diseases (Hodgkin's disease, lymphosarcoma and mycosis fungoides); (c) acute and chronic nephritis; (d) arteriosclerosis; (e) chronic diseases of the gall-bladder and liver; (f) malignancy of the viscera; (g) diabetes; (h) focal infections; (i) chronic intoxication due to drugs; i. e., opium, cocaine, arsenic, belladonna, alcohol, tea, and coffee; (j) chronic intestinal disorders and intestinal parasites.

(2) Functional and organic diseases of the nervous system.

(3) Changes in the skin itself: (a) pruritus senilis; (b) pruritus hiemalis; (c) pruritus estivalis; (d) bath pruritus.

The entire field of internal medicine may have to be covered in order to determine whether a given condition of pruritus is secondary to a systemic affection. The lymphogenic diseases, particularly Hodgkin's disease, lymphosarcoma and mycosis fungoides, frequently have pruritus as one of their initial symptoms. Burnham, in a report of 173 cases of Hodgkin's disease, found 34 in which there were complaints of pruritus but where the skin did not show any gross changes. Patients with an acute or chronic nephritis may complain of intermittent attacks of itching, and it may also be one of the earliest signs of a renal or bladder calculus. Pruritus is invariably complained of in certain diseases of the liver, gall-bladder and ducts with jaundice, but the pruritus may precede appearance of the jaundice. Zeisler reported a case of pruritus in which the blood disclosed excessive bilirubin due to an obstruction of the ampulla of Vater; there was no jaundice but a sufficient obstruction to cause an abnormal amount of bilirubin in the blood.

A routine examination of the urine is not sufficient when diabetes is suspected as being the cause of a generalized pruritus or a pruritus of the vulva; repeated blood examinations should be made to rule out a hyperglycemia. Focal infections, such as abscessed teeth or chronic prostatitis, are occasionally the cause of pruritus. Opium and its derivatives, and the other drugs mentioned, may cause pruritus but, on the other hand, morphine, as a rule, will abort an attack. Wright called attention to a so-called "gin itch" in which a generalized

pruritus followed the drinking of synthetic alcoholic liquors.

Toxins elaborated by intestinal parasites or other chronic intestinal disorders frequently cause local or generalized itching. Wright, in a study of 60 patients with chief complaint of itching, found in 26 a higher than normal uric acid percentage, and no other causes of the pruritus were found in that series; 19 of the 26 patients were relieved, partially or entirely, by a purin-free diet, but local antipruritic remedies were used at the same time. Cohen reported 2 cases of pruritus, one a generalized pruritus and the other a pruritus ani, in which skin tests were positive for potato and for pork respectively; removal of those foods from the diet relieved the pruritus. There are other systemic conditions which are, infrequently, provocative factors in pruritus; such as tuberculosis, pregnancy and menstrual disorders. The itching induced by systemic conditions results from presence of their irritating factors in the skin, toxins circulating in the blood, or through a derangement at the nerve centers.

Disorders of the central nervous system, either functional or organic, occasionally cause pruritus. Every effort should be made to rule out an organic disease, because, if the pruritus has been present for some time, it is obvious that the stability of those patients has been shattered by the torment and the insomnia caused by the itching. Patients with embolus and a complicating paraplegia, brain tumors, tabes and progressive paralysis, occasionally have an intractable pruritus. A generalized pruritus may be a symptom of some psychic reaction, arising from suggestion, auto-suggestion, fatigue, fear as evidenced in the different cutaneous phobias, or the pruritus in a sexual psychosis which may be masochistic, sadistic or onanistic in type. Some cases of pruritus of the genitals can be attributed to a sexual psychosis brought about by marital unhappiness or by ungratified sexual desire.

Senile pruritus may not always be due to degeneration of parts of the skin, as for instance, the degeneration of the elastica, but it may be a symptom of some psychoneurosis or it may be caused by toxic products circulating

in the blood as the result of degenerative changes in the internal organs in conjunction with arteriosclerosis. It may be assumed that these products sensitize the skin. Luthlen suggested that senile pruritus is due to a deficiency of silicic acid in the tissues.

One of the most common results in certain cases of pruritus is the development in circumscribed or more generalized areas of secondary changes like lichenification, in which the skin is thickened and the skin markings exaggerated. This is called *lichen chronicus circumscriptus*, or, neurodermatitis.

It should be remembered that in nearly all cases of essential pruritus, the skin is primarily hyperesthetic and, in combination with impaired conduction, or hypopelasphesia, all that is necessary to provoke itching is an exciting cause; which may be a constant or an intermittent irritation from woolen or flannel clothing, or change of temperature when disrobing. Cold weather is the exciting factor in *pruritus hiemalis*, as is hot weather in *pruritus estivalis*. Bath pruritus is an exciting factor. Other factors operative in these conditions are: a lack of natural oiliness; changes in the skin itself; and, systemic conditions.

Pruritus of the genital region may be evoked directly or indirectly by reflex irritation from adjacent pathologic organs such as a diseased prostate and seminal vesicles, calculi of the bladder and kidney, urethral stricture, diseases of the cervix and the vagina, cryptitis with inflamed hypertrophied papillas in the rectum, and hemorrhoids. Fungus infections are prone to cause *pruritus ani et vulvae*. Castellani, in a report of 54 cases of pruritus ani, found 11 due to fungus infection; the fungus having, apparently, remained dormant for a long time and then caused a severe pruritus but practically no objective symptoms. In some cases careful inspection of the area revealed minute, slightly raised, red, infiltrated patches; none presented active symptoms of *tinea cruris* and he compared the mycotic type of *pruritus ani* with the *pruritus interdigitalis pedem* of mycotic origin. An eczematous dermatitis due to scratching may develop and an infection may become superimposed on the mycotic conditions. The local inflammatory and other changes in the skin induced by

trauma and infection, cause increased secretion of the parts, which tends to aggravate and to bring on paroxysmal attacks of itching. Individuals with a seborrheal type of skin are more susceptible to pruritus of the genital region.

Treatment of generalized pruritus. Local and general treatment should be instituted at once for relief of a pruritus. There is always a lessened tolerance of irritation and a diminished power of resistance to traumatism in these cases; and in allaying the itching, by various measures, particularly mental and physical rest, the vicious circle is broken, repair of the tissues begins, and rational therapy based on etiology can be started and permanent relief obtained. In general, all irritating contacts should be scrupulously avoided, such as rough clothing, changes of temperature, too frequent bathing, excessive dryness of the skin, and irritating discharges. Bathing must be regulated and the bath made demulcent and soothing by the addition of bran, starch, soda bicarbonate or potassium permanganate, depending on which is best tolerated. Temperature of the water and of the room must be kept even. The patient must be instructed to dry the skin by patting instead of rubbing, which latter may cause irritation. However, in cases of senile pruritus moderate rubbing of the skin with a soft brush 3 times a day may be beneficial.

General dietetic and hygienic measures are helpful. Some patients, depending on the etiology, are benefited by a non-protein salt-free diet. In other cases decreased ingestion of carbohydrates is indicated. Skin tests may prove an idiosyncrasy to certain foods. Symptoms of intestinal toxemia call for colonic irrigations with sodium bicarbonate in 5% solution.

Internal medication. Bromides and cannabis indica are sedatives of value for itching of the skin. Bromides may be given in doses of 5 gr. 3 to 4 times a day, or intravenously daily in 5 to 10 c.c. doses of 10% solution; or, Tr. cannabis indica is good, in 10 minim doses, gradually increasing until 20 to 30 minims are being taken 3 times a day. Strychnine sulphate gr. 1/30 given 3 times a day, has been used with good results in senile pruritus. Arsenic, in the form of Fowler's solu-

tion, is helpful in a bath pruritus. In recalcitrant cases, foreign protein therapy will relieve or stop the itching. A 4% suspension of milk protein may be used in 1 to 5 c.c. doses, injected at 3-7 day intervals. Intramuscular injections of the patient's blood or serum probably give better results than milk, and may be given in 10 to 20 c.c. doses twice a week. Luithlen recommends the injection of silicic acid for senile pruritus, basing the rationale of this therapy on the deficiency of silicic acid in the tissues; using 1% solution, starting with 0.5 c.c. and increasing to 1 c.c., then 2 c.c. at 2 day intervals.

Of the antipruritic remedies, menthol $\frac{1}{8}$ to $\frac{1}{4}$ %; phenol 1 to 3%; camphor 1 to 3%; strengths are the best. Dusting powders containing these ingredients may be substituted. Fractional doses of Roentgen rays may be given for any persistent pruriginous patches.

Sack, Hazen, Klauder, and Stokes have all reported patients benefited by psychotherapy, and in all cases, regardless of etiology, the mental depression, insomnia, neurasthenia, fear and melancholia which result from the incessant itching, can thus be improved.

I have purposely left until last the discussion of treatment of pruritus in the genital region. The general and local measures outlined previously are of benefit in pruritus in this region also, but there are other measures which may be used. It may be repeated that in pruritus ani and vulvae, due to the anatomic location, heat and natural secretions, secondary changes such as maceration, inflammation and infection, occur very quickly. Therefore, an attempt should be made to stop the itching as quickly as possible. A rapidly drying solvent, such as carbon tetrachloride c. p., combined with phenol $\frac{1}{2}$ %, menthol $\frac{1}{8}$ % to $\frac{1}{4}$ % or camphor 1 to 2%, penetrates at least the superficial portion of the ducts, follicles and crypts, dissolves the secretions and excretions, and destroys bacteria and fungi. It may be combined with lanolin or olive oil, if the parts are dry; and then calomel powder may be dusted on. Liq. carbonis detergens, in an equal part of olive oil, is an antipruritic which relieves the itching in some cases. In *pruritus ani*, the

patient should be instructed in hygienic measures, such as use of a soft cloth or cotton instead of paper, and cleansing the parts after defecation with almond oil. Constipation should receive appropriate treatment. Hot compresses of boric acid solution are soothing and tend to allay inflammation. A 10% solution of silver nitrate should be applied to any fissures or excoriations. Radio-active mud has recently been used in the treatment of genital pruritus, because it has a weak but a constant analgesic effect, on chronic inflammatory processes, combined with a stimulating effect. It is used in the form of a poultice through gauze in direct contact with the parts and allowed to remain on over night, and repeated for 5 consecutive nights.

Surgery. Severing of the cutaneous nerves supplying the vulva and anus has given permanent relief in some cases but in many other cases the result has only been temporary. Jager, in a study of more than 1000 histologic sections of scar tissue, found primitive terminations similar in part to what is found in normally enervated skin areas; which may explain why the operative measures are not permanent. Cauterizing the pruriginous areas by actual cautery, or by application of pure phenol, is usually of temporary benefit. Karewski reported a case in which the actual cautery had been used without benefit, and he obtained a cure by excision of the scar tissue and substitution of a plastic flap. If a cryptitis with hypertrophied papillas is present, removal of the papillas under local anesthesia, and then opening and cauterizing the infected and inflamed crypts, should be done.

Stone and others have recommended the injection of 95% alcohol, with the patient under a general anesthetic; the injections to be made beneath the involved skin in 2 to 3 minim doses at each puncture, and the punctures spaced about $\frac{1}{4}$ in. apart, until the entire pruriginous area is injected. The scrotum, labia, anus and groins may be similarly injected. Relief is usually lasting for 6-12 months, after which time the symptoms recur. Benacol, which consists of equal parts of para-amino-benzol-ethanol-benzoate and phenmethyol, in 90 parts of olive oil, is also used by

injections for relief of pruritus; having the advantage over alcohol that an anesthetic is not required; and, it is said to be nontoxic, highly anesthetic, and moderately antiseptic. The injections, made in the same manner as those of alcohol, are given at 2-3 day intervals, in approximately 1 c.c. amounts. There have been some cases reported in which necrosis of the tissues occurred.

Vaccines. Murray, in a report of 900 patients having rectal complaints, found only 94 with pruritus ani; and Hill examined 3000 to find only 320 with pruritus. They were of the opinion that the various rectal conditions were *incidental* and *not causative* in pruritus ani. Murray, reporting 181 cases of pruritus ani, obtained a positive culture of *Streptococcus fecalis* in 168 and treating those with a vaccine of the standard strength of 2,000,000,000 per c.c., he cured the majority. Others have used a colon bacillus vaccine with fair results, but not as good as the results obtained with streptococcus vaccine. Knowles had good results with the streptococcus vaccine but found that the dosage had to be large and continued over a considerable period of time. It has been contended that the results obtained with vaccine were due to a protein reaction rather than a specificity; which is further substantiated by the results obtained in general pruritus with the use of milk protein and whole-blood.

Ionization. A form of treatment which consists of the introduction into the tissues, by a current of electricity, of one or the other of the constituents of those chemical compounds known as salts. The drugs most commonly used are Hydrargyrii oxycyanide 1%, Zinc sulphate 1%, Iodine 1%. Blue reported on 100 patients, 72% of whom obtained relief. Others have had fair results, but the method has not attained very wide popularity.

Mycotic infections. Various antiparasitic remedies can be used in mycotic infections of the genital region. Mycotic involvement of the nails, and between the toes, should be treated at the same time, in as much as these places may be the primary source of the infection. If the parts are acutely inflamed, soothing applications are indicated; followed by more stimulating remedies as the inflam-

mation subsides. Deek's ointment, which consists of salicylic acid 2%; mercury salicylate 3%; ol. eucalyptus and bismuth subnitrate, of each 10% in equal parts of lanolin and vaseline; and Whitfield's ointment, which consists of salicylic acid 3%, benzoic acid 5%, in an appropriate base; may be used. Castellani recommends silver nitrate 3% in spirits of nitrous ether; and, painting the parts with potassium permanganate 5% solution in water, and chysarobin 1/2% in vaseline.

The Roentgen ray is probably the most efficient remedy used for the relief of pruritus. The 2 methods used are local exposures and irradiation of the spinal ganglia. The local treatment consists usually of fractional doses (1/4 skin unit of unfiltered rays) at weekly intervals for a period of 2 months. Radium in the form of flat, glazed applicators screened with 2 layers of rubber and 1 mm. aluminum, and placed in contact with the tissues, will give the same results.

Ultra-violet light exposures for the treatment of pruritus are, as a rule, disappointing. Erythema or suberythema doses may be used.

The treatment of essential pruritus, even under the most favorable conditions, taxes the skill and the patience of the consulting physician.

THE PHYSICIAN AND THE WORKMEN'S COMPENSATION ACT

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Due to a general lack of understanding and to the comparative newness of the subject, it was, until recently, very difficult to arouse medical interest in the Workmen's Compensation Act. However, this lack of interest could not long continue, for, obviously, the profession plays a vital rôle. It is an established fact that industry could not very well progress without proper medical supervision and care of its employees; and this includes preventive measures such as hygiene and sanitation, and treatment of those who become disabled.

The New Jersey Compensation Law is very wide in its scope and covers every type of employment, from that of being a banker to that of the ordinary domestic servant. The rapid growth of industry in this hazardous machine age of the last 2 decades, causing large numbers of disabilities and fatalities as a result of accidents and occupational diseases, has created certain obligations of the employer to his employee; to the extent that the manufacturer considers repair and restoration of the injured employee a moral and economic responsibility equivalent to the repair of a broken machine. The public became aroused, from a social standpoint, by the large number of casualties, notwithstanding all the modern safety devices, and demanded legislation to the end that industry should bear the burden of defraying the expense of maintenance and of adequate medical care of its injured workers. Thus, we can readily see that the Compensation Law became an economic necessity.

New Jersey can well be proud of being the pioneer state to enact such a law (in 1911). It is obvious that it was a very humane act, and it has helped to keep the unfortunate injured, and their widows and orphans, out of the indigent class; thereby relieving society of the burden of this type of charity. Bearing these facts in mind, industry and the public in general will demand that such an extraordinary social measure of relief for the worker be operated upon a sound economic basis and be religiously free from any abuses or misconduct.

The medical profession was also vitally interested in this special legislation from an economic standpoint, when one considers that formerly "accident cases" were treated in free clinics and hospital wards, and the attending physician seldom received any remuneration for his service. Enactment of this law naturally created certain problems purely medical in nature and in which the profession was deeply concerned and called upon to solve; as, for example, the *cost of medical and hospital care* of the injured, and certain *medico-legal phases* of disabilities, of which I shall speak later.

Under this law, the Bureau was established as a new agency to protect the rights of the injured worker, to receive not only compensation payments, but also—what more particularly concerns us—proper medical and surgical care. The law also equitably safeguards the interest of the employer. This naturally required medical supervision of all compensation cases, including specific occupational diseases such as poisoning from lead, anthrax, phosphorus, caisson, benzol, arsenic, wood-alcohol, mercury and radium.

The *legal aspect* is considered by a "Referee"; at an informal hearing. The *medical aspect* is considered by the State Examining Physician; who acts in an advisory capacity only. His duty is to examine each patient, in coöperation with the attending physician, concerning diagnosis, treatment, prognosis as to function, and to make recommendations accordingly to the Referee or Commissioner. It is not to be construed that the *state* should take any part in the actual treatment of any compensation case, because the law was very clear in providing that these injured persons were not to receive the stigma of charity, and, that *all reasonable medical expense* was to be defrayed by the employer, who is usually indemnified by a casualty company.

The medical profession, on the other hand, is charged with the responsibility of treating these patients. Industry, and society in general, demand that this work must be handled in the most economic and satisfactory manner. With this object in view, the *state* should have a personnel for taking care of any disputed medical and hospital bills that may be incurred in the treatment of these patients.

Of course, we all realize that the special provision in the compensation law—the injured cannot choose his own doctor—has undoubtedly worked hardships on many practitioners. Morally and economically, this may not appear to be fair to the general welfare of the profession, and to have given a lucrative income to those few physicians who have tried to make a "specialty" of treating injured workers; and in the larger manufacturing centers it has tended to promote *undesirable practices* with which we are all familiar. On

the other hand, industry maintains that "the one who foots the bill should have the say as to physician choice; that it is to that party's interests to *seek the best* medical and surgical service, for the economic reason that the quicker the injured person is able to return to work the sooner compensation payments terminate. This view deserves serious consideration, but it is also interesting to learn that very often treatment by the physician from the insurance carrier is not the most economic and effective. There are numerous cases where the injured, for one reason or another, is antagonistic, or hostile, to the insurance doctor. The feeling of hostility often develops from the belief that a physician representing the interests of the insurance carrier must attempt to minimize or conceal the extent of the injuries and, also, to obtain damaging admissions. In short, there is often a feeling that the physician is not working for the interests of the employee patient. This lack of confidence militates against successful treatment. Recovery in these cases, particularly in back injuries, is retarded by this mental attitude; often developing into a psychoneurosis. So that, in such cases, the treatment is prolonged, the extent of disability is increased, and very often results in unnecessary litigation to the detriment of the insurance carrier. This situation can be corrected by either permitting the injured man to *select his own doctor* or to have the right to *choose one* of a group of physicians designated by the employer or insurance company. This is a problem in which the leaders of industry and of the medical profession, in this state, might cooperate to work out a practical solution, and thereby create a more friendly relationship.

It has frequently been remarked, by representatives of the insurance companies and by some leading members of our profession, that *most medical men are not qualified to treat compensation cases*. To all of this I cannot subscribe. I believe that the spreading of such rumors and impressions has been harmful to the medical profession and should be stopped; as failure to do this may result some day in *the state* assuming the obligation to furnish

these medical and surgical services through State Hospitals and Clinics as a social and economic measure, to the detriment of the profession. Personally, I believe, from my own experience, that *any practicing physician, who is willing to apply himself*, is well able to treat individual accidents, though it may be necessary for him to seek consultations on some of the more serious and obscure conditions. Any traumatic condition that assumes an orthopedic angle should be given special attention, such as the fitting of a brace or support, or the performance of a special reconstructive operation, in order to effect a cure. From an economic standpoint, industry will always demand the best result with the least amount of lost time. It is well to remark in this connection, that whenever you receive a patient for whom prolonged or special treatment is indicated, it is important that you *notify the insurance company of the facts immediately*. This is *essential*, in order that the carrier may have an idea of the approximate cost of the entire treatment, including medical, surgical and hospital care, in the particular case, so that a reserve fund can be set up, as is required by the state law; and such action would obviate many disputes concerning bills.

Undoubtedly, some of you have had difficulty, at one time or another, in collecting bills for services rendered to injured employees. A very important requisite, before going on with a case, is *authorization*; either from the employer or the insurance carrier, direct or implied, as in the event of an emergency. This is required by law and its observance would prevent many a dispute concerning unpaid bills. Of course, in determining the amount of your bill, one can only expect you to charge the same fee that you would in similar cases occurring among workmen in the community whose bills are not guaranteed. It should always be borne in mind that the compensation law, with its liberal interpretations, operates in a Workman's Bureau. This necessarily implies that no expensive form of treatment is appropriate, such as applications of physiotherapy which are costly, and where the immediate effect would be *only palliative or mental, and not of a curative nature*. This would

include also engaging special nurses and private rooms, unless there is a special indication of necessity. However, we should not be forgetful of the fact that *industry must bear the full expense of all reasonable medical and hospital care to save life and limb*. The law also provides that when this expense exceeds \$50, special extension medical forms must be filled out, in triplicate, and filed with the Bureau. These forms can be procured by writing to Trenton.

There is no set standard for medical or surgical fees in the Compensation Law, and this has frequently caused a dispute as to what constitutes a reasonable charge. I believe this problem can be solved in the same manner as are compensation claims at the informal hearings. The doctor or hospital submits a claim to the Bureau, and the respective referee sets the date for a hearing and sends informal notices for the interested parties to appear. The bill in dispute is referred to the visiting state physician, who acts as an arbiter between the parties. With this procedure, this problem has been solved in a very satisfactory manner, especially in the less densely populated counties. In the larger manufacturing centers coöperation and assistance of a *Bill Committee*, including a representative of the county medical society, has been operating with success. In this connection, I am happy to state that the Bureau has always been willing to coöperate with the medical profession, to the extent that it has used its influence to help the attending physician collect a just bill for his services.

A very important function of the Bureau, and which should concern the medical profession, is to appraise the degree of disability. It is the final check-up and end-result of an injury, and is in accordance with the Compensation Act, which provides that "the extent of disabilities be determined upon medical advice". This particular phase of the work has become of late, a matter of medical, sociologic and economic concern. It has been greatly abused and misunderstood by many members of the profession. Selfish motives, inexperience, lack of proper study of the injury, and misguided sympathy, have often wrought

hardship in properly evaluating the merits of each disability. Frequently, a medicolegal phase arises in this connection; which shall not, however, be discussed at this time.

In order to determine this appraisal, an accurate diagnosis of the injured part must be first arrived at. It is also essential to distinguish between a functional and a surgical result, in each case. For example; Pott's Fracture with good alignment of the fragments and with complete callus formation, may be a *perfect surgical cure* and still be an *imperfect functional result*, due to a valgus deformity, or shortening with an alteration in the weight-bearing angle; and the latter constitutes a distinct disability. The same is true of many similar injuries. Complaints of pain and subjective signs cannot enter into a disability, unless there is a loss of function which is warranted by a history of trauma and clinical findings. Objective signs are the chief sources in the rendering of compensation appraisals at the Bureau.

In studying disabilities, we must recognize 2 sets of diagnosis for each case, *primary* and *secondary*. The primary diagnosis is the initial reaction of the injury, such as concussion, sprain, fracture or dislocation, and upon it depends the probable duration of *Temporary Disability* or healing period, during which the injured person is unable to resume work by reason of his accident; the secondary diagnosis is the sequel or the end-result of an injury, with pathologic disturbance of structure and function, and forms a basis in estimating *Permanent Disability*. The latter is analogous to the actual or physiologic loss of function of a member, regardless of the man's trade or occupation; for instance, a traumatic weak or flat-foot, following a fracture; a neurosis or a brain injury, following shock or concussion; ankylosis or arthritis, following a fractured joint; a fibromyositis, following sacroiliac strain of the back.

With a normal joint there must be maintained normal muscle balance; otherwise, we get undue strain, with fatigue, on various ligaments and muscle tendons, which may constitute a deformity. I particularly refer to complaints of the lower-back, with habitual faulty

body mechanics or defects, either structural or postural in character, characterized by Osgood, of Boston, as "attitudinal strains". This condition is found in people with markedly pronated flat-feet, or knock-knees, and large pendulous abdomens. Thus, deformities and strain as a result of faulty postures, arthritis, anomalies, unbalanced and static weak backs, are common causes of complaint, but themselves are seldom due to trauma. Their relation to injury has been a disputed point at law in courts and in the Compensation Bureau for many years, and grossly misunderstood by many members of the profession working in the industrial field. It has been estimated that such abnormalities of the spine exist in 35% of all individuals.

We have also frequently found that a person having hernia with strained inguinal rings, will, following a trauma, suffer pains referred to the back in the lumbar region. This is probably caused by reflex action of the ilio-inguinal and genitocrural nerves radiating to the lumbar plexus. Also, one occasionally finds a diseased prostate causing persistent low-backache. All these phases must be considered from a diagnostic standpoint before a final deduction can be made on the disability, of any member, resulting from trauma.

In addition to arriving at an accurate diagnosis, of equal importance in the consideration of permanent disability, is the relative value of the various functions of a member; for example, it is commonly conceded that supination and abduction of a limb are much more important in function than pronation and adduction. The same is true of dorsal flexion being of greater value than palmar or plantar flexion, and according to Steindler, of Iowa, the ratio in the foot, is 5 to 4; in the fore-arm and wrist, it is 3 to 1; and in the hip, 2 to 1. If this ratio is altered by some pathology from an injury, then the normal muscle balance is disturbed, and a deformity or a disability results. Finally, attempting to compute a disability in a mechanical fashion with instruments may be inaccurate and misleading in compensation cases, for obvious reasons. This is explained by the fact that the degrees of motion possible in normal human joints has

a wide individual variation, since the contortionist and the so-called muscle-bound individual may be said to be normal. In the limbs, the affected side is compared with its fellow member, but in back injuries the use of instruments for computation is of little or no value, and recourse must be had to clinical and pathologic study. The same is true in all the specific occupational diseases.

Before closing, a word about expert medical testimony, which, in litigation concerning disabilities for compensation, should be discouraged by the medical profession, whenever possible, and only be resorted to when there is an honest difference of opinion complicated by a legal angle which cannot be solved in an amicable way. Experience has taught us that during pending litigation, the nature and character of the injuries become materially altered, being frequently beclouded by nervous and mental manifestations and resulting in malinger; thereby causing undue delay in the final recovery of the patient. It renders the giving of true medical testimony very difficult, and apt to be misleading. This is particularly true of head and back injuries following shock; making it at times difficult to tell what is virtue and what is vice. Thus, in the rendering of medical testimony, it should be the moral duty of each member of the profession to act scientifically—as a *diagnostician* and *not a partisan* in a law-suit. That which is *false*, *psychic* or *imaginary* must be separated from the *real*, *organic* or *structural*.

Occasionally, one may encounter some difficulty in arriving at an accurate diagnosis in a compensation case. The following classification by Osgood and Allison may be referred to as a guide in the appraisal of injuries of bone, joints and soft tissue structures. (1) Hyperemia, swelling. (2) Muscle spasm, atrophy. (3) Increased synovial fluid. (4) Adhesions, stiffness, grating. (5) Suppuration. (6) Fibrosis and scar tissue. (7) Ankylosis.

In the industrial occupational diseases that come under the Act, a clinical study of exposure and pathologic changes in the hematopoietic system, is the essential feature to be considered.

Any one of the above clinical entities fol-

lowing trauma constitutes a genuine disability, partial or permanent in nature.

Where we have an injured employee, with disabilities complicated by a mental background that is purely psychic, he must not be unnecessarily drawn into litigation; for purely sound medical and economic reasons. A final determination and an unmistakable explanation of his rights under the Act, by the presiding Bureau Commissioner, thus permitting the injured to adjust himself without a psychologic handicap, is the only sane, just and altruistic solution.

In the handling of such cases, medical conferences of attending physicians with the State Medical Examiner have proved helpful in overcoming some of these difficulties. The profession is asked to cooperate in this cause.

In conclusion, I believe that the medical phase of the Compensation Act, with its operation as presented in this paper, is of sufficient importance to justify arousing interest among the members of our profession.

POLYPOSIS OF SMALL AND LARGE BOWEL

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Postmortem specimens of bowel malignancy frequently show polyps of different types, undergoing malignant change, surrounding the tumor mass. Recently, more attention has been given to the demonstration of polyposis in the living. In the differential diagnosis of abdominal pain, little attention is given by general physicians to the possibility of polyposis, and not infrequently the surgeon, in his study of conditions obscure but showing gastro-intestinal symptoms, omits those procedures which would not only show the presence of this condition but also the extent of bowel involved.

The following case history illustrates these points.

D. B., female, aged 20 years, on first admission, in 1926, complained of a dull, aching pain in the abdomen, radiating to the lumbar region, with nausea and vomiting. She had been having quite severe abdominal pain at frequent intervals for the past 4 months; coming on immediately after a meal or starting up in the middle of the night; sometimes severe and of a crampy nature, and vomiting accompanied all these attacks. Gastric analysis showed occult blood. She had not been able to retain any food during the past month; even water made her vomit. No diarrhea, no blood in stools. Discharged December 1926 with diagnosis of gastric ulcer and secondary anemia. Other hospital records of this patient are as follows: Admission, April 1927, complaining of dull pain in the umbilical region, often accompanied by vomiting. Discharged as "neurosis of stomach". Admission, August 1927, with similar complaint and laparotomy revealed 2 jejunal polyps, which were excised and patient was discharged as cured in September. Admission, May 1928, when resection was made of large portion of small intestine containing polyps. Pathologic report: Cauliflower growths large; no mitotic figures, or other evidence of malignancy; diagnosis adeno-papilloma of small intestine. Discharged in June, diagnosis being—"Intestinal polyps clinically cured."

Finally, she was admitted to hospital in October 1931, after collapse in a theatre lobby. On admission, profuse rectal bleeding and signs of severe shock. Pulse 120 and weak; marked pallor; rapid respirations; blood pressure 90/60. On examination, following blood transfusion, rectum and sigmoid distended with clotted blood and after removing those clots proctosigmoidoscopic view showed several polyps, mostly of the sessile type, in the rectum and sigmoid. One polyp having a grape-like appearance, with a long pedicle, situated just below the recto-sigmoid junction, was bleeding profusely. This was readily fulgurated so that hemorrhage was controlled. The pathologic report was: "benign polypoid fibro-adenoma of the rectum."



Diffuse polyposis of colon; showing characteristic lacy network of shadows pathognomonic of the disease. Double-contrast technic (4)



Diffuse polyposis of colon; showing characteristic lacy network of shadows pathognomonic of the disease. Double-contrast technic (4)



Benign polypoid fibro-adenoma of rectum



Benign polypoid fibro-adenoma of rectum

Blood examinations showed severe secondary anemia; Wassermann negative.

Roentgenologic examination, using the double-contrast technic, showed diffuse polyposis of the colon and rectum. Routine colon enema failed to show the presence of polyps.

Patient improved while in the hospital and was discharged with a blood count showing marked improvement and no gastro-intestinal symptoms; stool showing negative benzidine reaction.

Comment: This case shows the necessity for more frequent proctoscopic and proper roentgenologic examinations when unexplained symptoms of the gastro-intestinal tract are present. When polyps are located in any part of the intestines, steps should be taken to determine their possible presence in other regions. These patients should be closely followed and examination repeated to determine possible recurrence, especially when such symptoms as abdominal pain, vomiting, diarrhea, or melena are present. According to Niemack, polyps of adenomatous structure are potentially malignant. Therefore, the treatment of diffuse polyposis is still quite uncertain. Lynch states that if the tumors are beyond reach of the examining instrument, and healthy mucous membrane cannot be viewed, removal is contraindicated. Simple measures, when the tumors are inaccessible, have often secured surprising relief. An artificial anus, ileostomy or ileocolostomy, when indicated, may give gratifying results.

It is interesting to note that the irritation produced in the intestinal tract by these polyps, which act as a foreign body, can attain force by increasing the peristaltic action. Cases of intussusception have been reported and operative intervention has been necessary for the relief of acute intestinal obstruction.

In a study of cases, reported by FitzGibbon and Rankin, it has been shown that polyps fall into 3 major histologic groups and that those of group 1 usually pursue a benign course, while those of group 2 tend to show malignant changes, and formations of the third group are evidently pre-cancerous.

TREATMENT OF EARLY SYPHILIS

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The problem, in treating syphilis, resolves itself into early detection and adequate treatment. In our service, the percentage of clinical cures is in inverse ratio to the duration of the disease before treatment was instituted, and to the thoroughness of that treatment. Even at this late date, there is no uniformity of opinion as to whether the *old-conservative* or the *modern-radical* method of treatment is to be preferred.

C. B. Norris, in a masterly review of the literature, comparing inadequately treated with properly treated patients, according to modern standards, shows definite advantages in favor of the modern-radical treatment. Men like Kemp, Moore, Bruns, Irvine, Stokes, Hoffman, and Oppenheim, agree that patients seen early and properly treated show a large percentage of clinical cures. In recent years; i. e., during the salvarsan era, there has been a definite decrease in the number of skin and bone lesions; while we must admit an increase in the incidence of tabes dorsalis, general paresis, and cardiac lesions. Probably, this increase can be explained by our better clinical diagnostic abilities, by the universal employment of serologic tests as a help in diagnosis, and, we have to mention the tendency among physicians to treat syphilis *inadequately* with the different arsenicals; which may be a greater contributing factor to cerebrospinal involvement than when they were treated with mercury only. Various explanations have been offered for this clinical manifestation; the one most commonly given being that since salvarsan has a high spirillicidal power, and a low penetrability into the cerebrospinal circulation, the spirochetes have a greater tendency to mobilize in the areas where there is a chance for survival.

Against the modern-radical method of treatment, we have the opinions of men like Warthin, who claims that, pathologically, he has never seen a cured case. Jacobi does not con-

sider re-infection as a proper criterion of cure. Fordyce looks on a cure as the exception rather than the routine, in late cases, but he does admit clinical cures in early cases. Modern dermatology, looking on the cutis not as a mechanical protector only, but as an organ actively participating in the immunologic body defense mechanism, considers that preventing the appearance of early secondaries does more harm than good.

With so great a divergence as to therapeutic principles, it was natural that different plans of treatment should be advocated in different clinics. Thus, we find the following plans advocated:

(1) *Intensive plan* (Scholtz and Pollizer). This consists of daily injections of neo-arsphenamine; then mercury or bismuth injections; to be followed by neo-arsphenamine again.

(2) *Intermittent plan* (Neisser). Here, the patient gets 6-8 neo-arsphenamine injections; followed by 12-15 bismuth or mercury injections; a rest period of from 1 to 2 months; and the same treatment repeated.

(3) *Continuous plan* (Almquist). According to the advocates of this plan, courses of neo-arsphenamine and bismuth or mercury follow one another continuously.

(4) *Mixed injections plan* (Linser). Uses neo-arsphenamine 8 injections, together with 8 injections of mercury during the same course of treatment; followed by a rest.

In the literature, we find that the results do not differ much with the plan of treatment. It all comes back to the same question: How early was treatment instituted and how well has it been conducted?

We, in our clinic, have been following the continuous plan of treatment as advocated by Almquist and used in the University of Pennsylvania Clinic under Dr. Stokes, and at the Mayo Clinics by Dr. O'Leary.

As to the drugs employed: The history of syphilis is rich in pharmaceuticals advocated. Some of them, in their day and age, had as high a popularity as any used at present. Guaiacol was for a time looked upon as a panacea. Resinous wood distillates were for a time very popular; probably the salt residue had some value. With the advent of cinchona

bark, quinine was extensively employed as a "cure-all" for every disease, and it was to be expected that its popularity should extend to the therapy of syphilis. In the seventeenth century, and revived again during the Revolutionary War, opium held sway in this field of therapy. A blissful state was vouchsafed to everyone infected.

It was with the use of mercury that a rational treatment began to develop. Credit must be given to Jead de Vigo who, so far as history tells us, was the first to employ this drug at the close of the fifteenth century. For a time its usefulness was over-shadowed by the above mentioned drugs, but from 1821 to 1910 its use had been rationalized and for that period, at least, it was the drug mainly employed. With the use of iodine, introduced by Martini and Lugol in the Nineteenth Century, a marked improvement was shown in this form of therapy, not to be superseded until 1908 by the discovery of salvarsan and its derivatives. At present, iodine is best employed in late syphilitic manifestations, as in bone lesions, liver and skin involvements. The best results we get is when it is employed with mercury. After a long trial and careful evaluation, the place of salvarsan in the treatment of syphilis is firmly established. It is true that judgment and care must be exercised in its use, but the same applies to any powerful drug. We have to be constantly on guard against a Hexheimer-Jarick reaction, but this fear can be eliminated, to a large extent, by first using bismuth or mercury.

The latest addition to our drugs with which to combat syphilis is bismuth. The first clinical report published of its use is that by Levaditi, in 1922. Clinically, it has stood well in extensive application both here and abroad. While its effect is more rapid than mercury, there is so far no clinical evidence justifying the belief that salvarsan can be replaced by bismuth.

Our patient's interest is mainly in what we can tell him as to a cure, and as to the possibility of a relapse. The consensus of opinion is that early, "Wassermann-negative" patients show a permanent clinical cure in 90% of those treated according to modern-radical standards. More than 60% of early cases with

a "positive Wassermann" show the same results, while only 45% of late secondaries give those results. According to Scholtz, Hoffman, Kemp, Moore, and Stokes, recurrences come in these properly treated patients within the first year-and-a-half after the cessation of treatment, and we base our work on those observations. After a thorough course of treatment, 1½ yr. of clinical observation, with repeatedly negative serologic tests, negative eye findings, negative cardiac findings, a spinal fluid with less than 5 cells, and negative Wassermann and colloidal gold reactions; then, and only then, is the patient considered safe to be discharged. But, we must always keep in mind that *no absolute cure is demonstrable*, and even the carefully watched patients may have a relapse.

SUMMARY

(1) All early syphilitics are put on weekly injections of a bismuth preparation; a course of 12 injections. This is followed by 8 weekly injections of 0.3 gm., 0.45 gm., 0.6 gm. neosalvarsan, depending on the patient's weight. A watch is kept on his general condition, especially heart and kidneys, by periodic urinalysis. If there are no contraindications, this treatment is kept up for 1 year without any rest periods.

(2) With aid of the Social Service Department, an earnest effort is made to get in touch with all contacts, and they are examined, both physically and serologically; and treatment is instituted when necessary.

(3) The second year, 2 courses of treatment are given, with rest periods, and periodic serologic examinations after each rest period.

(4) When blood reports are repeatedly negative, the patient is referred: to the medical clinic for a heart examination; to the eye clinic, for an ophthalmoscopic examination. After a rest of 6 months, another serologic examination is performed; this time including a spinal tap with a cell count, Pandy's reaction, a Wassermann test and a gold colloidal curve report. It is only after all these reports are negative, that the patient is discharged with instructions to come once a year for a check-up.

CONCLUSION

While we fully realize that the system of treatment here outlined is not theoretically ideal, experience has shown that under this system we can get a maximum control over our patients and the optimum results under the circumstances. We always keep in mind—the patient first, and not the disease—depending on time and the natural immunologic processes in the body, as our greatest allies; while the chosen chemicals are employed to control infectiousness and stimulate the protective mechanism in the infected individual.

DIATHERMY IN EYE, EAR, NOSE AND THROAT AFFECTIONS

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Much has been written and spoken about diathermy for the removal of tonsils, and almost everyone knows something about it, but many physicians have asked me about the details—what is the best make of machine to buy—how much does it cost—what apparatus do you need and what is the technic?

There are several machines on the market; mine happens to be the Fisher and my model is known as "The Hospital Portable Diathermy Unit". It may be obtained with or without a cart to roll it about; it is much too cumbersome to carry. A smaller one, known as the "Portable Unit", is supplied for this purpose. My machine cost \$305 and the portable unit is \$275. So far as I know, they do the same work. The General Electric X-Ray Corporation has a machine much smaller than mine, weighing about 40 lb., and it may be carried about. Its operation is very simple and its adjustments very fine. It costs about \$285. I have used both the Fisher and this other machine on the same patient at the same time. He claimed that there was less sensation from the General Electric; but he was an agent for that machine.

The high frequency current is developed from the electric lighting system by increas-

ing the voltage and diminishing the amperage, and tremendously boosting up the frequency of alterations. The electric light current has a voltage of 110, and alternates 60 times a second, whereas the high frequency current uses about 6000 volts and its rate of alternations is from 240,000 to 2,400,000 times a second. The faradic current is an alternating one, but compared to the H. F. C., is very slow and causes a stimulation of muscles and nerves. D'Arsonval, a Frenchman, discovered in 1898 that the H. F. C., with its higher voltage, low amperage and high rate of alternation, was so quick that it did not cause nerve and muscle stimulation—only heat; the patient has no sensation of a current passing through. The terminals, of themselves, are cold, but the resistance in the tissue to the current develops the heat, and it is claimed that if the machine be properly adjusted in balance there should be absolutely no other sensation than heat. The direction of the current being to and fro there is no positive and no negative pole, and if the 2 terminals be of the same size, neither can be spoken of as the active nor as the indifferent terminal, because the heat will be the same under each; when one is made smaller, the same degree of heat is concentrated in a lesser space, and then, this terminal is spoken of as the *active* and the larger one as the *indifferent or dispersive* terminal. This is the *medical diathermy current*. If the smaller terminal be brought down to a mere point, the heat becomes intense—enough to destroy tissue—and this produces the *surgical diathermy current*. Medical and surgical diathermy currents are produced by the same apparatus, the difference being obtained by altering the size of one terminal. Medical diathermy is used in the treatment of joints, pneumonia, sinus disease, etc., where heat alone is required; surgical diathermy is used where the destruction of tissue is desired. The amount of heat, in either case, can be exactly regulated. The surgical current may be used either for coagulating or for desiccating tissue; a difference in the degree of dehydration. When coagulation is desired, the pointed terminal is inserted directly into the tissue, and left just long enough to cook it, but if the point be withdrawn, leaving a slight space, a spark jumps across, which

causes desiccation. However, when we intend to desiccate, we, in practice, use the monoterminial current, the patient's contact with the ground being sufficient to complete the circuit. This surgical diathermy current is not to be confused with the *tissue-cutting current*, known as the "endothermic knife" or "radio knife", which is produced by a different machine, although the 2 types may be housed in the same cabinet. The surgical diathermy current is used only for coagulation or desiccation, while the endothermic knife dissolves the tissue at a point, and as the point is moved along the tissue is separated.

As a result of application of the medical diathermy current, inflammatory exudates, irrespective of their character, are absorbed. The hyperemia induced, increases local reparative processes through increased blood supply, thereby increasing the number and activity of the phagocytes. Nutrition of the cells is enhanced, which plays an important part in raising resistance to bacterial invasion.

Medical diathermy is contraindicated where there is a history of recent hemorrhage, and it should not be applied where there is a collection of pus, unless there be good drainage. Growth of pyogenic organisms may be increased by the stimulation, and sufficient toxine absorption take place to produce multiple abscesses. A low temperature over a longer time gives better results than more heat quickly applied. Medical diathermy reduces the ache in the treatment of sinus disease. Heat has been used for the relief of pain since the beginning of history, but heat applied by the use of wet or dry applications does not penetrate deeply, whereas the diathermy current develops heat inside the tissues. But, as above mentioned, in the presence of pus there is danger, and this method must not be used unless there be free drainage. In acute infection of the middle ear, the mastoid cells are more or less involved and, necessarily, the drainage is imperfect. Therefore, the use of H. F. C. is contraindicated. Chronic nonsuppurative otitis media, without otosclerosis or inner ear involvement, is claimed by some operators to respond readily—relieving the tinnitus and partial deafness. There is no standardized technic. I am not decrying this treatment, but will admit

of no remarkable success. Experienced operators warn against passing through the head, from ear to ear, a current in excess of 300 m. a. for more than 20 minutes, but a treatment from ear to arm, on the same side, can be one of tolerance, regardless of time.

I have not used diathermy in eye affections, but Fidgor, writing in the British Journal of Ophthalmology, states that he has treated some 60 patients and claims that *pain* in the eye, from whatever cause, and in any chronic eye disease, is always thus relieved. He states that chronic senile conjunctivitis invariably does well; that iridocyclitis and cyclitis vary but in some instances have apparently been cured; that in glaucoma the tension is appreciably lessened after each treatment, and reports that 1 patient has been entirely relieved from symptoms and has held to normal vision for a year (number of treatments not stated). Cataracts are not improved, as a rule. If I should have a case of gonorrheal conjunctivitis, I should be tempted to try this treatment; for the gonococcus is killed at a temperature of 108° in 30-40 minutes. The above quoted Fidgor reports one case of double, severe infection, where 3 applications of diathermy completely resolved the condition. He uses a special applicator, the written description of which is not clear. One author advises kaolin—antiphlogistin—moulded over the closed eye, on which is secured the foil terminal. It is claimed that H. F. C. does no injury to the eye if properly handled. Of course the terminals must be securely applied so that a spark cannot jump across, to the eye, and the current must be increased very slowly, to toleration, and the first treatment should not last over 4 minutes; successive treatments may be continued longer.

My experience with surgical diathermy has been mostly in the removal of tonsils. Doctors of experience, have good reasons for their own methods of removal. I believe that there is a best method for each case—granted the operation is necessary. It has happened to me several times that potential patients have come with a fixed idea that they wanted their tonsils removed by electricity. I advise against coagulation, unless there is a good reason for

doing it. When I explain that no tonsil can be completely removed with fewer than 6 treatments, and often requires 10, and that I treat opposite tonsils in alternate weeks—that it will take from 12 to 20 weeks—for removal; that they will have a sore throat for 2 days following each treatment; and that the cost will be greater; they sometimes have a change of views. If they are infirm, from age or illness; if they are bleeders; have anemia or diabetes; and if they are willing to go through with it, then this may be the best way to remove the tonsils. I tell the patient, frankly, that it will cost him so much (?), which is twice as much as I would charge for the usual method, and that the fee is to be paid in advance; because, I tell him, it is a long-drawn-out ache, and unless the fee be paid in advance the chances are that after a few treatments he will not find it convenient to come, and only part of a necessary job will be finished, whereas if the fee be paid before starting, he is more apt to continue to a happy ending. I charge more for doing this work because it is worth more. If we do an orthodox operation, our agony is soon over, and I think it a mistake to attempt electrocoagulation for the same price. For the usual fee, we are inclined to get the case finished in the shortest possible time, and thus make a mistake—by doing too much at each sitting—thus causing more reaction, with the likelihood of touching the muscles and possibly large vessels. My best results have been obtained by slight treatments, extending over a long time. Some treatments have continued as long as 3 years. In this way, the patient hardly realizes the tonsils have been removed. There is a great difference in reaction to pain. Some claim, positively, that there is no pain at the time of treatment, and only a noticeable soreness during the succeeding 2 days. Others feel a pain run up to the ears and have to go to bed the following day. This is partly due to a difference in temperament and susceptibility and partly to the type of tonsil tissue.

In the beginning, I used as the dispersive terminal, a piece of block tin slathered with some kind of jelly and bound about the back of the neck with a bandage. This was a nuisance. The next step was a large piece of the

same material 6 by 8 in., dropped down the back. This is not convenient, and decidedly uncomfortable on a cold day. Recently, I have used a piece of block tin 5 ft. long by 1 ft. wide, large enough to cover the whole back of the stool and its seat. The patient sits on this, fully clothed, except in the case of a man, when I may ask him to remove his coat. I have had no ill results. As the active terminal, I use the single point but do not insert it deeply into the tissue. There is on the market a device which does away with this type of dispersion terminal. It is called a "bipolar tonsil electrode", that is, the instrument which the operator holds in his hand contains 2 wires, both the active and indifferent, and they terminate in 2 curved needles about 2 mm. apart. Thus, the current travels only the shortest distance between the points. Its advantage, it is claimed, lies in the fact that coagulation takes place only between the points and does not extend down into the tissue an unknown distance. I can conceive that this is possible. I do use, however, at times, the active terminal in one hand and the indifferent in the other; the indifferent being used as a retractor, some of which are ring-shaped, and others shaped for pushing or pulling the pillars out of the way. This is very satisfactory in deeply placed tonsils when the pillars lie close together, but an assistant to hold the tongue is required. I have not had a case of secondary hemorrhage. When, after a few treatments, a large part of the tonsil has been removed, I can always visualize those large veins so often seen after a local anesthetic or ether operation lying in the fossa, and I hate to think of the result if a side of one should slough after a few days. We have heard of such happenings.

Recently, I removed a tonsil under local and after raising it from the fossa discovered a piece of buried tonsil near the lower pole. Grasping it with the forceps, I was surprised at its size, and I dissected out a piece, nearly as large as the original tonsil. To my mind, this answers the question to my only failure with diathermy, in which case I had completely removed the tonsil, as I thought, and had discharged the patient, but after a few weeks she

returned with a sore throat on the left side. It developed that she had pus confined and a buried piece of tonsil. I don't know how this can be avoided. It is one of the uncertainties. It has happened to me but once.

I paint the tonsils, pharynx and buccal surfaces with one applicator, several times, using 10% cocaine solution with adrenalin. Butyn, I have used but do not get the same effect. It is not satisfactory to use any kind of injection. We are attempting to dehydrate, and putting fluid into the tissue causes more dispersion of heat. There should be but little pain. The chief justification for anesthesia is to relieve gagging. I have found that insertion of the terminal at intervals of $\frac{1}{4}$ in. is very satisfactory. Some operators drag the needle down through the tonsil from top to bottom, at the first sitting. Large, soft tonsils can be penetrated more deeply than small fibrous tonsils, and more applications made. Patients will usually claim that they can stand a sore throat, and urge to have as much done as possible so it will be over more quickly, but that is *before* they have had a treatment. It is my experience that they are more apt to return, if only a little is done the first time. I have never had any edema; again because not too much has been attempted, and great care has been exercised that the coagulation did not penetrate muscle. Some doctors disapprove of the method because they have seen incomplete removals and bad results (by other operators). No method is without faults. I heard an experienced operator read a paper in which he said the more tonsils he removed the less he felt able to assure perfect results. So, I say, with electrocoagulation—it is not perfect. I much prefer operating with ether or local anesthesia. But if, for any reason, this can't be done—diathermy is a way out. I have learned it is best to do a little at a time, and not more frequently than every 2 weeks, and give a sufficient number of treatments. In my opinion, coagulation requires more skill, and patience, and knowledge, of technic and anatomy, than the usual surgical requirements, and no man is a finished tonsillectomist until he has had years of experience and treated a great number of patients.

RELATION OF ANAPHYLAXIS TO ACUTE AND CHRONIC DISEASE

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Anaphylaxis is described as a series of phenomena which occur on reinjection into animals, after an interval of several days, of certain substances which were harmless on first injection. Many consider the word *anaphylaxis* unsatisfactory and prefer to use supersensitiveness, hypersensitiveness, sensitization, or allergy. So far as we know at present, only proteins are capable of acting as sensitizers or allergens. These proteins may be derived from animal tissues, such as blood serum or milk, vegetable and plant tissue, and bacterial substances. The allergens may be introduced into man by injection, as is done when treating a condition with a serum. Absorption through the skin by rubbing may also cause sensitization; and, absorption may also occur through the intestine.

The anaphylactic reaction is to a high degree specific. Group reactions, however, occur. An animal sensitive to sheep serum will react, but less violently, to goat serum. Many theories have been put forward to explain the mechanism of anaphylaxis but none give an absolutely satisfactory explanation of all the phenomena. As true anaphylaxis is due to a protein, this protein, when injected, acts as an antigen; i. e., a substance which leads to the formation of antibodies.

Serum sickness is a true anaphylactic phenomenon. Although most often due to use of antitoxic serum for diphtheria or tetanus, the symptoms are caused by the *horse serum* and not by the *antitoxin*. The larger the dose of serum the more likely a reaction. The chief features are skin rashes, pyrexia, and joint pains, but edema, especially of the eyelids, and adenitis may occur. The urticarial type of rash is most common, and occurs usually from 8 to 11 days after injection. The rash may, however, be in the form of a multiform erythema or even scarletiform in character. Rashes may occur after the primary or after

several injections. They are due to the foreign serum injected calling forth production of an antibody or ferment, which acts on the serum still in circulation; which causes a cleavage and liberates a poison. In human beings, severe forms of serum disease, characterized by sudden onset, within a few minutes after injection, have been recorded; showing extreme prostration, dyspnea, and may end fatally; usually due to the person having had a previous injection, weeks or months previously, and the antibody already there immediately reacts with the antigen. Not more than 50 fatal cases have been recorded, and this is a small percentage of the total number submitted to such a possibility. Before giving any horse serum preparation to an individual of whom there is any suspicion that they may be sensitive, either from previous inoculation or from attacks of asthma or urticaria, it is advisable to test that individual's sensitivity. To do that, serum is applied to a small scarified area of the skin, and within 15 minutes a wheal, surrounded by an area of erythema, should appear in a sensitive person; and such person can be desensitized by giving fractional doses, each increasing in strength, until the condition is controlled.

In serum disease, the hypersensitive state is produced artificially by injection of serum, but there is a large group of persons who are found to be naturally susceptible to certain substances. It has long been known, for instance, that certain persons, on eating egg albumin, pork, oysters, lobsters, or strawberries, suffer from urticarial rash, indigestion, diarrhea, or vomiting. Hay fever and asthma are examples of the same phenomenon, where the reaction follows inhalation of some substance to which the individual is sensitive. Drug eruptions come in the same category. The fact that the symptoms are produced by minute quantities of the offending protein, that such persons give a positive reaction to it, and that they may be desensitized by ingestion or inoculation with that protein, all point to such phenomena being anaphylactic. As we have already seen, in serum disease, the incubation period, before symptoms occur, may be explained on the anaphylactic theory. So, in acute infectious diseases, there is a similarity

between their course and that of serum disease. During the incubation period, antibody formation is going on, and when that is sufficiently developed an antigen-antibody reaction takes place with liberation of the toxic substance which causes the symptoms. The incubation period of most infectious diseases (8 to 12 days), such as measles, or chicken pox, corresponds closely to the incubation period of serum sickness. Of course, all the symptoms of acute diseases cannot be explained on this theory. In diseases like diphtheria, the toxins produce effects quite apart from those due to protein of the bacteria. But, taking everything into consideration, the course which acute infectious fevers run can be explained fairly satisfactorily on the assumption that they are due to bacterial anaphylaxis.

I will briefly point out that chronic infections, such as tuberculosis and syphilis, are examples of sensitization to bacterial proteins; and, that in tuberculosis a true bacterial sensitization occurs is shown by the facts that:

- (1) Local, focal, and general reactions occur on injection of tuberculin. The duration and severity, depends on the quantity injected.
- (2) Complement fixing and agglutinating substances occur in the serum in cases of tuberculosis. These are analagous to the Wassermann reaction.
- (3) Passive sensitization to tubercle bacilli can be produced by injecting the serum of tuberculous guinea-pigs, and tuberculous patients into normal guinea-pigs.
- (4) Cutaneous reactions to tuberculin; i. e., Pirquet reaction, are present.
- (5) Tuberculides are the skin eruptions which occur as the result of a blood infection by the tubercle bacillus, of persons who are sensitized to tuberculosis. The tubercle bacilli are carried to the skin capillaries and a local reaction occurs in the skin where they lodge. This reaction is essentially the same as the Pirquet reaction, but from the blood side instead of from the exterior. The older view that it was due to toxins of tubercle has now been disproved, as the bacillus has been shown, by numerous workers, to be present.

Syphilis resembles, in many ways, the acute specific fevers. After an incubation period of about 3 weeks the primary lesion develops.

This primary lesion is a local focus from which a spread takes place by the lymphatics to the glands, from which the spirochetes enter the circulation. As in the specific fevers, explanation of the rashes in syphilis is based on the principles of sensitization. Early in the infection, before there is any sign of secondary rash, antibodies are present in the blood. This is demonstrated by the presence of a positive Wassermann reaction in the blood serum. These antibodies are brought by the circulation to the skin where they sensitize the cells, and the allergic reaction, between the spirochetes and the skin, leads to the production of the various secondary rashes. The incubation period between the primary and secondary stages represents the time it takes to completely sensitize the individual. At the end of 6 weeks the individual's skin is allergic and the spirochetes deposited in it, through the circulation, cause a reaction, which results in the roseola rash. In this stage, the individual is not highly sensitized, and the reaction is, therefore, a comparatively slight one, but evidently sufficient to cause a destruction of the spirochetes in the skin. Later, if a further shower of spirochetes is sent into the circulation, the individual being now more highly allergic, a larger rash occurs—papular or papulosquamous—and later still, nodular. Each of the secondary rashes becomes less and less extensive, and larger and larger in size. Finally, the tertiary stage is reached, where the allergy of the skin reaches its maximum and the larger nodular gumma in localized areas results. All the evidence available goes to support the idea that in syphilis one is dealing with a true bacterial sensitization of the tissues, analagous in every way, in the secondary stage, to the specific fevers and to the sensitization which occurs in diseases like tuberculosis.

You also get skin sensitization in ringworm. This is shown where generalized rashes occur in cases of superficial and deep seated ringworm, especially the latter. These are known as trichophytides. They may be papular, with or without horny spines, vesicular, pustular, erythematous or nodular. These trichophytides are due in the widespread cases to a

hematogenous spread of the fungus when the skin is allergic.

Under dermatitis venenata are included all the forms of dermatitis due to external irritants. This form of dermatitis only affects certain individuals. A chemical substance or plant which causes an eruption in one individual, may be handled by another with impunity. This special susceptibility of certain individuals to certain substances used to be put down to an idiosyncrasy on the part of the individual. It is really a sensitization of the skin. It explains why one person is affected by a substance which has no effect on another. The most common form that we know in this country is caused by *Rhus toxicodendrum*, poison ivy, and next most common the English primrose, *P. obconica*. Among the many chemicals, the hair dyes and dyed furs cause the most frequent dermatitis. An interesting feature is the fact that while the whole skin surface is susceptible, the mucous membranes are immune. Poison ivy leaves can be rubbed in the mouth and chewed without reaction. This holds good in chemical sensitiveness. For instance, in patients sensitive to iodoform, subcutaneous injection of iodoform oil, internal administration of iodoform, or application to mucous membranes for 24 hours had no effect, but as soon as a trace was applied to the skin a dermatitis resulted. This is supposed to be due to a cellular hypersensitiveness. To confirm this, Bloch transplanted a piece of skin from an iodoform dermatitis patient and also a piece of his own skin, to another person with a healing burn. When both pieces had "taken", he dusted the area with iodoform and obtained a very marked reaction only on the piece of skin from the patient who was sensitive to iodoform. The rest of the skin, including the piece of Bloch's own skin, showed no reaction. This he repeated with extract of ringworm fungus. Bloch, who was himself sensitized to an extract of ringworm fungus (*trichophyton*) and whose skin gave a positive *trichophyton* reaction, transplanted to a patient with a chronic leg ulcer, a piece of

his own skin and a piece from a normal individual not sensitive to ringworm. After the 2 pieces had taken, he did cutaneous tests with *trichophyton* on this man, on his normal skin, on the piece transplanted from Bloch's own arm, and on the piece transplanted from the normal man's arm—and obtained a positive reaction only on the piece of skin from his own arm. These experiments prove that in sensitization of the skin the condition is a cellular one of the cutaneous epithelium and does not depend on the blood or other organ.

I cannot close the discussion of this subject without mention of desensitization, which may be specific or non-specific. Specific desensitization can be carried out as described previously under serum disease (i. e., horse serum) and in urticaria, drug rashes, plant dermatitis and food eczemas, etc., by the injection or ingestion of the same substance which caused the sensitization.

For instance, desensitization to poison ivy is carried out by injection of *Rhus toxicodendrum* in oil or by minute doses of alcoholic extract, as formerly used by the Homeopaths. Non-specific desensitization is carried out by using some substance either resembling, or differing widely from, that which caused the sensitization. This method is also known as protein shock therapy. Intravenous injections of peptones, milk, or bacterial vaccines such as typhoid, all cause a febrile reaction (103°-104° F.) with a rigor which is thought to be essential if benefit is to result. Before the rigor there is usually a leukopenia followed by a polymorphonuclear leukocytosis (about 40,000) reaching its maximum 2-12 hours after the rise in temperature. The action of non-specific therapy and benefit derived in certain cases, has never been fully explained. Whether due to temperature or leukocytosis, is not decided, but there is little doubt that the administration of various albuminoid bodies causes a definite local reaction on pathologic tissues which leads to their absorption. For that reason, these methods have been occasionally found useful therapeutically.

PRIMARY DIPHThERITIC VAGINITIS IN CHILDREN

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Cases of diphtheric vaginitis in children are apparently so few in number, and laboratory work on most of them so casual, that reliable statistics relating to them are difficult to obtain. A search of the literature for 30 years prior to 1922 yielded but 26 reported cases, of which only 6 were possibly primary vaginal infections; the others being secondary to infections of the throat and nose. The publication of the British Medical Research Council on diphtheria states, relative to diphtheria of the genital organs: "Although such cases, undoubtedly due to virulent bacilli, are familiar to bacteriologists, no instance in the literature has come to our notice in which the identity of the bacillus has been completely established."

Since 1922, we have been able to find but 6 references to diphtheric vaginitis in children; 2 of these were cases of secondary infection and the other 4 submitted insufficient data to prove them to be of the primary type.

A case of vaginitis which came to the attention of one of us (van Saun), in 1921, at the City Laboratory of New Haven, Connecticut, proved to be a secondary diphtheric infection in a child 8 years of age; and with that child diphtheria bacilli were found also in cultures from the nose. The case was severe and noteworthy in that 5 months elapsed before the child was released from quarantine. Virulence tests on cultures from the nose and vagina proved the organisms from each source to be virulent; also, dextrose was fermented.

Vasile, in 1924, reported a case of diphtheric vaginitis in a girl aged 13 who died 24 hours after admission to the hospital. The discharge from swollen and reddened external genitals contained diphtheria bacilli. Nose and throat cultures were also positive, indicating

secondary infection of the vulva mucosa. No mention was made of virulence tests.

Vasile also referred to 2 cases of vulvo-vaginal diphtheria described by Triputti, but gave no details.

Versari, in 1926, observed a case of diphtheria of the vulva in a girl 2 years of age. Serotherapy proved beneficial but he made no mention of nose and throat cultures or virulence tests.

Bisdorn, in 1927, reported diphtheric vulvo-vaginitis in a girl 9 years of age and the subsequent infection of her younger sisters through a tub previously used for bathing the older girl. The patient was first treated for nephritis, then developed swollen labia and suppression of urine. Diphtheria bacilli were found in the vaginal discharge. Recovery followed in 8 days after administration of antitoxin. The 2 younger sisters developed vaginitis 1 day after the oldest sister's admission to the hospital. Diphtheria bacilli were found in the discharges from the vagina. Following serum injections, symptoms practically disappeared in 2 days. The youngest child, 13 days after administration of antitoxin, developed pharyngeal diphtheria, with recovery in 5 days. Mention is made of a virulence test on this last mentioned child and it was said to have been positive, though it is not clear that virulence tests were also made on cultures obtained from the vaginal secretions.

Mason, in 1927, reported at some length the case of a child 6 years of age who had a felon (paronychia) on the third finger of her left hand which had healed by the time she developed vaginitis with accompanying symptoms of difficult urination and dark gray membrane on the labia minora, vaginal opening and hymen. Nose and throat cultures were negative. Antitoxin was administered and the patient was discharged 1 month afterward. Diphtheria bacilli were isolated from the vagina but virulence tests were not made, because Mason felt that there was no doubt about its being true diphtheria of the vagina. He also thinks that the condition was probably primary, though it is not quite clear that the felon, which had healed by the time the vaginitis developed, might not have been due to a diphtheric infection.

Recently, our attention was called to a case of vaginitis in a child 9 years of age. The patient had complained of a distended abdomen, with great pain and difficult urination for a week previous to being seen by the physician who reported the case; and 24 hours later a younger sister developed tonsillar diphtheria, her throat containing a membrane and a throat culture being positive. Nose and throat cultures, taken at this time from the mother of the children, were negative. Both children were removed to the Hospital for Communicable Diseases, of the Paterson Board of Health. The diphtheria in the younger child was controlled at once by the administration of antitoxin, and the patient was discharged from the hospital in a few days, after 2 negative release cultures were obtained.

The vaginal case proved to be a true diphtheric infection; typical membrane protruded from the vagina; there was much inflammation; a purulent, serosanguineous discharge, with scattered pustules outside the vulva; pulse rapid and child very anemic. Cultures: from the vagina, large numbers of typical diphtheria bacilli; from the throat, negative; from the nose, diphtheria-like bacilli of a short, solid type.

Antitoxin was administered at once; 10,000 units; and local treatment with potassium permanganate solution was instituted. As the type of bacillus in the nose differed so markedly from that in the vagina, virulence tests were made in order to complete the identification of both organisms. The typical, barred form, from the vagina gave a positive, and that from the nose a negative virulence test; the organism from the vagina fermented dextrose but not saccharose, while that from the nose fermented neither dextrose nor saccharose. It would seem, therefore, that the organism from the nose was not a diphtheria bacillus and that we were dealing with a primary infection of the vagina.

The patient was released from quarantine on 2 negative cultures 5 weeks after her condition was diagnosed as diphtheric vaginitis. In all, 24 cultures were taken from the patient and members of her family. Of 13 cultures taken from the vagina of the patient, 9 were positive. These results indicate the ne-

cessity for release cultures in cases of vaginitis as in other forms of diphtheria. It was not possible to determine the source of the patient's infection. She had developed symptoms of vaginitis more than a week before her younger sister came down with tonsillar diphtheria, and the mother was apparently not a carrier, so some other source than a member of the family was probably responsible for infection of the older child. (We are indebted to Dr. W. M. Winters for the clinical history of this patient.) Such infections are, possibly, not so rare as their infrequent description in the literature would lead one to believe. However, one of the largest communicable disease hospitals in the United States reports very few cases of diphtheric vaginitis, either primary or secondary, and the Paterson City Isolation Hospital has no record of any other case of this type during the past 10 years.

Whether or no there is such a thing as a true primary diphtheria of the vagina would be difficult to prove. In only a few of the reported cases given in this paper was any mention made of confirmatory cultures and virulence tests on vaginal and throat or nose secretions.

Several references have been made, by various authors, to the relative severity of the primary and secondary types of diphtheric vaginitis in children. It would seem to have been the opinion that the primary type was the more severe. Of the 2 cases of which we have special knowledge, the secondary type was by far the most severe, the so-called primary case clearing up as speedily as the usual nose or throat infection, while the secondary case was of much longer duration.

SYMPTOMS AND DIAGNOSIS OF ACUTE INTESTINAL OBSTRUCTION

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The classic and rather hackneyed subject of "Intestinal Obstruction" is one that any speaker might feel apologetic in presenting, were it not so closely associated with the problems of diagnosis and treatment of the "Acute

Surgical Abdomen"; a problem of diagnosis which is obtruded first, as a rule, upon the family physician and is, therefore, a matter of just as great interest to the internist as to the surgeon. It is perhaps even not too much to say that in many acute abdominal conditions the results (as regards mortality percentage) depend nearly as much upon the promptness of treatment as they do upon the skill of the operator. And it is the family physician who usually secures intervention of the surgeon, early or late, as the case may be. He must share, therefore, in some measure with the surgeon, responsibility for the outcome of operative treatment. Certainly, this is true in the case of intestinal obstruction, where the mortality percentage has so clearly been proved to depend upon the time elapsing between onset of the obstruction and its relief by operation. More than 35 years ago, in England, Sir Frederic Treves said most impressively: "The mortality of acute intestinal obstruction is 75%. It should be about 5%. The difference is due to delay." Again, 10-15 years ago, when the mortality of the condition was about 50%, John Finney, of Baltimore, wrote: "A poor operation early is better than a good operation late." These important messages seem not to have impressed themselves upon the mind of the family physician. And yet, it is of very real urgency that they should do so because, in spite of our enlarged knowledge of this condition through clinical, statistical and experimental studies; in spite of our improvement in anesthesia and in surgical technic and in physiochemical management of the patient; we surgeons have been able to accomplish only about one-half of the reduction in mortality of acute intestinal obstruction that Sir Frederic Treves predicted. The mortality now stands at about 40% in most general hospitals and we badly need the wise coöperation of the family physicians if we are to justify our hopes of reducing it anywhere near to the figure that ought to represent a fair mortality for so serious a condition. If we had no evidence beyond the pronouncement of Treves, regarding a proper mortality, we might justifiably call him a visionary. On the contrary, however, we ought to hail him as a prophet, for statistical studies at the Johns Hopkins

Hospital, in Baltimore, at the Children's Hospital, in Boston, and at the Presbyterian Hospital and the Roosevelt Hospital, in New York, have shown that the mortality is, in fact, only about 5% in those cases of intestinal obstruction which are relieved by operation within 12 hours of the onset of symptoms; while, in the group of patients allowed to go without operative relief for 72 hours or more, the mortality varies (at different hospitals) between 50% and 75%. Nothing can illustrate more strikingly than these figures the importance of early diagnosis. It is to the questions of symptomatology and diagnosis, therefore, that I desire to call attention, rather than to the aspect of surgical treatment. For, early diagnosis is the beginning of the best treatment. Surgical technic is usually relatively simple in an early case and frequently exceedingly difficult in a late case. Early diagnosis is, therefore, of the utmost importance and the chance to make an early diagnosis belongs, usually, to the family physician or internist rather than to the surgeon. It is only those cases which arise in his own postoperative patients that are seen first by the surgeon. I wish to repeat that I do not believe, from my observations at various hospitals, that medical men are sufficiently alive to the importance of their contributory share in the mortality of the surgical treatment of certain acute abdominal conditions; and notably of acute intestinal obstruction. This contribution of the family physician to improve results in surgical treatment was dramatically illustrated by the work of Charles Clubbe, in Sydney, Australia. He, as an important surgeon in a relatively small community, was able to convince his medical confrères of the necessity for early diagnosis in cases of intussusception, that most common form of acute intestinal obstruction in young children. As a result of his educational efforts throughout a period of years, cases of this sort were submitted earlier by the family doctor for operation by Clubbe. And, largely as a result of this contribution by the medical men, Clubbe's results in surgical relief of the conditions were astoundingly improved. He reported 3 series of cases, as follows: the first series of 50 cases, covering a period of 7 years, had a mortality of

43%. His second series of 50 cases, covering 3 years, had a mortality of 34%. His third series of 44 cases, covering one-half of the patients of his first series were sent in early (within 24 hours) for treatment. In his second series, 60%, and in his third series, 80% were sent in early for treatment. This increasing percentage of patients seen early very largely represents the general practitioner's contribution to the improvement in that surgeon's results. Writing about intussusception, in 1907, Chubbe says: "Medical men are now much more alert than they used to be. Formerly, it was extremely rare to get a patient sent into the hospital until 2 days had elapsed from the onset of symptoms. Now, it is common enough to get patients in a few hours after the symptoms have been first noticed. The great increase in the number of intussusceptions admitted to hospitals everywhere in the last few years does not indicate that intussusception is now more common than formerly; it shows that men are becoming better educated, and more careful, and more often recognize these conditions at first sight. It must be difficult for the medical man, who has perhaps not met with a case during his student days, nor heard a clinical lecture on the subject, and whose sole knowledge of intussusception has been gained from a text-book on surgery he read for an examination, to recognize a case of this sort when first he meets it. The text-books, as a rule, do not lay stress enough on certain symptoms but, perhaps, too much on others." What Chubbe wrote about intussusception in Australia, 25 years ago, can still to some extent be applied to the subject of intestinal obstruction today in the United States. And, early recognition of the condition is still the most important factor in its successful treatment. The recognition is not at all difficult in a typical case of complete obstruction that is well advanced. But this sort of case has only about a 50% chance for recovery and our endeavor is to get the patient with intestinal obstruction to the operating table within the first 24 hours, when his chances of recovery will be 90 to 95%. One difficulty, and I think the chief one in accomplishing this result, is that such cases are not common (they

furnish only about 1% of the admissions to our wards) and are, therefore, not to the forefront of consciousness in our medical minds. In other words, they are not as readily suspected as they should be. This difficulty, however, can be gradually overcome if we will resolve to keep in mind the possibility of intestinal obstruction in any patient with acute abdominal trouble that we are called upon to see.

Now, the common symptoms of all acute abdominal conditions include pain, tenderness, vomiting, constipation or diarrhea, distention, rigidity and some disturbance of the pulse, temperature, respiration or blood count. And the possibilities that immediately come to mind, when without traumatic history certain combinations of these symptoms present themselves, are: acute gastro-enteritis, appendicitis, peritonitis, cholecystitis, pancreatitis, diverticulitis and perforation of the bowel. Later, we think of acute salpingitis, torsion of an ovary or cystic pedicle, or, of a ruptured ectopic pregnancy. Still later, if we keep on thinking, we may think of a mechanical ileus, an intestinal obstruction due to strangulated, occult hernia, adhesions or bands, neoplasm, volvulus, mesenteric thrombosis, intussusception, or foreign body impaction. Last of all, perhaps, we may think of a dynamic ileus due to certain poisons, or of an adynamic ileus of reflex character or toxic origin. But, we are certainly not apt to think of the less common possibilities unless we make a conscious effort to consider all the possibilities and unless we make a habit of diagnosis by exclusion rather than by conclusion. Now, in the diagnosis of acute abdominal conditions no amount of brilliant intuition can take the place of thorough, pains-taking observation and investigation. Investigation of the history, the symptoms and the signs; investigation of the order and characteristics of the events leading up to the picture that is present before us; then of that present picture itself; and, finally, of the changes that occur during the period of investigation and observation, in case a definite decision cannot readily be made at once. It is by such means that we secure the highest percentage of correct diagnoses and avoid, as nearly as we may, unnecessary and ill-advised

surgical intervention. But, on the other hand, there can be too much of a good thing. There can be an excess of this valuable procedure, and there are many instances where surgery that is apparently radical proves to be most truly conservative. Therefore, if we have in mind the possibility of acute intestinal obstruction, and if that suspicion is supported even by presumptive evidence, we are not justified in any long delay. The mortality curve reminds us that it is safer to operate than to wait. Further in support of this policy, Finney wrote that it was a rare thing in his experience to find a person who had been operated on for intestinal obstruction by mistake. The mistake that is usually made is operating too late. Moreover, among about 100 patients operated upon for acute ileus during the past 4 years at the Presbyterian Hospital, I could discover only 1, or possibly 2, in which the diagnosis was not definitely confirmed at operation.

It would be a waste of your time to detail all the symptom combinations that point to one or another of the conditions that I have briefly mentioned. But, because intestinal obstruction is not common and not readily suspected, and because the early diagnosis is so important, I feel justified in going into the symptoms and signs of this condition in some detail.

Symptoms of acute ileus: Stated in order of frequency of occurrence (from an analysis of 200 cases at the Roosevelt Hospital), I will set forth my own listing.

Pain: usually of a "colicky", remittent character; often the first sign.

Vomiting: at first large in amount, later small amounts, spilled over; beginning with stomach contents; later, intestinal contents.

Obstipation: frequently not appearing till 12 to 48 hours after onset of pain.

Distension: usually gradually increasing, but varying with the amount of vomiting and eructations of gas.

Prostration: becoming gradually more and more marked.

Relatively low temperature: about 100° F. or less in uncomplicated cases.

Relatively high W.B.C.: in the neighborhood of 15,000.

These form the *symptom complex*, called

"Acute Ileus", which connotes the toxemia resulting from prolonged abnormal intestinal stasis due to intestinal obstruction or paralysis, from any cause. Where stasis complicates a peritonitis, pain is apt to be a less prominent feature, even though the intestinal paralysis is accompanied by adhesion angulations that kink the gut and shut off its lumen. The absence or lessening of pain is perhaps due in part to the patient's lowered perceptivity and in part to the absence of violent peristaltic activity in the weakened intestinal muscle.

A symptom less frequently observed than those above mentioned is *visible peristalsis*, which is due to heightened peristaltic activity against the point of obstruction. It is more frequently and more readily observed in cases of acute ileus supervening upon a chronic ileus where the gut has hypertrophied from overworking against a gradually narrowing lumen. It may be a very early symptom. It may sometimes be felt, rather than seen, as a stiffening of the bowel beneath the examining fingers.

Abdominal tenderness and rigidity, so common in most intraperitoneal lesions, are characteristically absent unless the ileus complicates or is complicated by an acute inflammatory condition within the peritoneum.

A mass may occasionally be felt where the ileus condition follows upon a strangulated hernia, intussusception or neoplasm, or where an abscess is present.

Intestinal rumblings (borborygmi) may be followed by the stethoscope to a silent area which indicates the neighborhood of the obstructed point in cases of obstruction. They are characteristically absent in cases of paralytic ileus.

Measurement of the abdomen may indicate an increase of size due to distention not noticeable to the eye. Radiographs characteristically show, in this condition, a series of gas-distended loops with fluid levels prominently marked and are frequently helpful in diagnosing doubtful cases.

Enema characteristically returns s flatus.

Urine examination frequently shows albumin and casts and chemical examination may show increased nitrogen output (unless the kidneys are damaged).

Blood chemistry tests usually show in-

creased blood urea, reduced chlorides and altered CO_2 combining power; but this evidence may be absent and should not be depended upon for early diagnosis.

The stomach tube may show important evidence of intestinal reflux into the stomach.

The pulse is usually slow (except during colicky attacks) early in the course but later becomes rapid and often irregular.

Symptoms of the various causal mechanisms are pretty thoroughly detailed in the textbooks under appropriate headings and will not be discussed here.

The characteristic symptom-complex; pain, vomiting, obstipation, distention and prostration, varies tremendously in intensity with different patients, and now one, now another symptom will be first noted or most emphasized. Often the onset is insidious, the symptom-complex not severe, and the physician is tempted to palliate until the diagnosis is very evident and the best chance of saving the patient has gone by. Rarely, the onset is sudden, the symptom-complex severe in all specifications, and the progress toward collapse so rapid as to be irrevocable except by the speediest decision and promptest action on the surgeon's part. These are the discouraging phases of the diagnostic problem. As a rule, the signs are really clear only to one who will carefully observe and critically compare conditions at intervals of a few hours. A tentative diagnosis is usually readily arrived at by this method.

Diagnosis of acute intestinal obstruction. In attempting to make a diagnosis of acute ileus, it must be kept in mind that an absolutely definite diagnosis frequently cannot be made until the condition has so far progressed as to make recovery unlikely. It must be kept in mind that this is a rapidly progressive disease and that early treatment gives the best chance of recovery. *It is evident, therefore, that operation must often be advised upon the basis of a tentative diagnosis only.* It will be seen that this is quite justifiable when one recalls that other acute surgical abdominal conditions which may be mistaken for acute ileus are nearly all best treated by early operation.

There are certain details of history and examination frequently omitted by an interne which the surgeon must be sure to check upon

as essential items in the diagnosis and prognosis.

HISTORY

(1) Ascertain, as exactly as possible, the elapsed time in hours since onset of first symptom.

(2) Ascertain the order of onset of symptoms.

(3) Inquire the character of pain, its location and radiation.

(4) Inquire carefully about the character, amount of vomiting and frequency of vomiting, and any alteration in the character of the vomitus indicating that intestinal contents are being passed backward into the stomach.

(5) Inquire carefully about the usual bowel habits; also character of last stool, time since last stool, relation to onset of pain and vomiting, and whether flatus has been passed with stool or enema or independent of either.

(6) Ask whether patient has noticed any "swelling" of the abdomen or "bloating" or "rumbling" of gas.

(7) Give orders to *save* any vomitus or stool and *examine it yourself*. Note the amount of vomitus, its color, consistency, odor, and reaction to litmus. Upper intestinal contents are cloudy, yellowish, greenish or brownish in color, contain flocculi of mucus, smell slightly unpleasant or even foul, are thin in consistency and usually alkaline in reaction. The expression, "fecal vomiting", is most misleading. Remember that blood and mucus in considerable amounts in a stool of one who is vomiting and distended, always strongly suggest intussusception.

(8) Give orders to *measure* intake and output and see whether patient vomits more than he takes by mouth.

EXAMINATION

(1) Note the distention, if any, its extent and outline, and check, by careful measurement, its increase or decrease at end of 2 hours and 4 hours, if the diagnosis is in doubt.

(2) Look for visible peristalsis and feel for stiffening of the bowels beneath the fingers.

(3) Empty the stomach by tube and wash it clean. At the end of 2 hours pass tube again

and see if upper intestinal contents have been refluxed. Do the same again, if necessary, after 4 hours.

(4) Have H. C. I. (2 gal. at 115° F.) given [with 0.5 c.c. pituitrin hypo. just before beginning it] and have careful note taken as to return of gas with it; much, little or none. Have this repeated in 2 hours. Watch it yourself, if possible. And repeat it again, if necessary, in 4 hours. Note whether the pituitrin seems to give rise to pain, or to increase the pain, if any is present.

(5) Listen carefully with a stethoscope for borborygmi and try to follow them to a silent area that indicates the obstruction point.

(6) Feel for mass which might be cause and site of obstruction. Keep in mind that it is of the highest importance in this disease to lose no time in making a diagnosis. Some cases will be obvious upon careful first examination and operation can be proceeded with at once. Other cases will be not clear-cut and patient must be seen a second or third time before even a tentative diagnosis can be made. In such cases, no more than 2 hours need be lost if the following criteria are observed:

(a) Upper intestinal contents found in stomach 2 hours after it has been washed out clean.

(b) Little or no gas secured with H. C. I., repeated once.

(c) Little or no reduction of (or an increase of) the abdominal distention.

If symptoms have lasted more than 12 hours, even though patient has not vomited again and bowels have moved more or less with enema, the above criteria indicate obstruction and call for operation at once.

The really difficult cases to decide are those where the signs of obstruction seem to be subsiding: the patient has not vomited for several hours; an enema has brought away some gas; the distention appears to be less marked than it was and the patient is less uncomfortable. These cases turn out to be, 9 times in 10, partial obstructions which become complete, intermittently, due to over-distention. Removal of the distention, by stomach tube and rectal tube, relieves the completeness of the obstruction, obscures the definite symptoms and leaves the surgeon still

wondering what to do. Inasmuch as most of these conditions recur soon as complete obstructions, it seems fair to make some such rule of procedure as this: unless, after careful watching for 4 hours, you are perfectly satisfied in your own mind that the obstruction has been relieved spontaneously (in one of these doubtful cases) it is safer to explore at once than to wait longer to make certain. For, if there is no surgical lesion that needs attention, an exploration is not dangerous. But, on the other hand, if there is a surgical lesion, particularly an obstruction present requiring attention, then delayed operation is increasingly more and more dangerous. Consequently, it is fair in this acute ileus condition to reverse one's usual procedure and say "when in doubt, operate!"

SEASONAL HAY-FEVER

With Special Reference to the Middle Atlantic States

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HISTORY

In 1565, Botallus made the first reference in medical literature to patients with itching of the nose, and sneezing, from the odor of roses. Binningerus, in 1673, reported the case of a woman who suffered from coryza every year when the roses bloomed. In 1819, John Bostock, an English physician, was the first to describe hay-fever as a definite clinical entity. Bostock, himself, was a victim of hay-fever, and gave a classical description of his own symptoms in a paper entitled: "Case of a Periodic Affection of the Eyes and Chest."

Elliotson, in 1831, was the first to suggest that hay-fever was caused by the flower of grass, and probably by the pollen. Charles Blackley, another English physician who suffered from hay-fever, performed numerous ingenious experiments to prove definitely that grass pollen was the cause. To Blackley belongs the credit for originating the skin test,

when in 1865 he applied to abrasions on his arms and legs the pollen of numerous grasses and flowers, and obtained positive reactions. He also tested the effect of various pollens on himself, by inhalation, and by application to the mucous membranes of his nose and eyes. By exposing to the atmosphere, glass slides coated with glycerine, he was able to correlate his hay-fever symptoms with the pollen content of the air. For example, on days when his hay-fever was bad, he found the slides covered with grass pollen, and on days when he had mild symptoms, there was relatively little pollen on the slides. Blackley offered no form of treatment for hay-fever other than a trip to the sea-shore, or, preferably, an ocean voyage.

In the United States, Morrill Wyman's book, published in 1872, was the first important contribution to the study of the autumnal or exclusively American type of hay-fever. He favored the pollen theory. Marsh, of New Jersey, wrote a paper in 1877, in which he accepted completely the pollen theory, and called attention to common ragweed (*Ambrosia artemisiaefolia*) as the principal cause of hay-fever in America.

In 1903, Dunbar, in Germany, also accepted the pollen theory, and repeated and confirmed the experiments of Blackley and others; but Dunbar went much further and proved that the protein fraction of pollen contained the active principle. He erroneously believed the poisonous principle of pollen to be a true toxin and, acting upon this false hypothesis, injected horses with gradually increasing doses of pollen protein, endeavoring to produce a specific antitoxin against hay-fever. The serum obtained from these horses was named *Pollantin*, and was designed to be applied locally to the mucous membranes of the nose and eyes of sufferers from hay-fever. *Pollantin* was widely distributed throughout the world, but soon fell into disuse, partly because of the anaphylactic reactions to the horse serum experienced by some of the users of this preparation.

In 1906, Wolff-Eisner suggested that hay-fever was a form of anaphylaxis. Noon and Freeman, of England, in 1911, were the first to report the treatment of hay-fever by injec-

tions of specific pollen extracts; using grass pollen extracts, of course, and they obtained very satisfactory results. In this country, Clowes and Koessler were the first to report upon specific treatment of the autumnal type with injections of ragweed pollen extracts. Before closing this brief historic review, I should like to pay tribute to the late Dr. William Scheppegegrell, whose extensive studies on hay-fever, resulting in any number of papers and a comprehensive book on the subject, contributed so much to our knowledge of the disease.

Types. There are 3 distinct types of seasonal hay-fever in this section of the country, namely: early spring, due to tree pollens; late spring or summer, due to grass and plantain pollens; and the fall variety, which is by far the most common, due to pollen of the ragweeds. From a careful analysis of case records of all the seasonal hay-fever patients who consulted me during one year, I would estimate that in the Middle Atlantic States, the early spring type constitutes about 4% of the entire group, the late spring or summer cases about 32%, and the fall variety about 64%. Approximately $\frac{1}{4}$ of the late spring or summer cases are of the combined summer and fall types. The fall type, as a rule, is of longer duration and greater severity than either spring or summer hay-fever. About 40% of the spring or summer hay-fever victims develop asthma at some time during the course of the disease; whereas about 50% of those with fall hay-fever develop asthma.

Etiology. Pollen is the male fertilizing element, through the medium of which the propagation of plants takes place. There are 2 types of plants, namely, anemophilous or *wind pollinated*, and entomophilous or *insect pollinated*. Only those that are wind pollinated are of importance from the hay-fever victim's point of view. Insect pollinated plants can be readily distinguished by their brightly colored flowers, sweet odors, and the presence of nectar glands; these being Nature's invitations to bugs, bees, and butterflies to come get the pollen; and in going from flower to flower they distribute it to other plants of the same species. This type of plant produces a comparatively small amount of pollen, the

grains of which are large, heavy, and sticky, and readily adhere to the body and legs of insects. On the other hand, wind pollinated plants have dull, insignificant flowers, and are lacking in sweet odors and nectar glands; their pollen grains are small, light, and buoyant, are produced in great abundance, and under favorable conditions are carried by the wind for miles.

When I first started to do hay-fever and asthma work, I tested every seasonal hay-fever patient with a large number of different pollens, insect as well as wind pollinated, and I learned from this that nearly all of the seasonal hay-fever in the Middle Atlantic States is due to relatively few different pollens.

Early Spring. Oak tree pollen is by far the most frequent cause of early spring hay-fever in this section. The oaks pollinate during April and May. There are at least 20 different species growing in the Middle Atlantic States, but they are all so closely related that an oak pollen mixture is sufficient for routine testing. In my experience, black oak (*Quercus velutina*), white oak (*Quercus alba*) and red oak (*Quercus ruba*) are the 3 most important varieties as regards hay-fever. The oaks belong to the Fagaceae or beech family, and another member of this same family, the beech tree (*Fagus grandifolia*) causes some cases of hay-fever during April and May.

After the oaks, the sycamore (*Platanus occidentalis*) is probably the most important hay-fever producing tree in this section; and it pollinates during the last half of April and in May.

The hickory (*Hicoria*), of which there are at least 7 different species in the Middle Atlantic States, is responsible for quite a few cases of early spring hay-fever, and I use a mixed hickory pollen for their detection. The hickories pollinate during May, and belong to the Juglandaceae or walnut family. The black walnut tree (*Juglans nigra*), which is another member of this same family, also accounts for an occasional case of hay-fever during April and May.

The pollen of the birches (*Betula*), of which at least 3 different species are encountered in this section, is the cause of some cases of early spring hay-fever. The black birch (*Be-*

tula nigra), also known as red or river birch, pollinates during April, and in my experience is the most important variety causing hay-fever.

The maples (*Acer*), of which at least 7 different species are found in the Middle Atlantic section, pollinating anywhere from January to May, are responsible for some cases of early spring hay-fever. The pollen of the box-elder (*Rulac negundo*), which is another member of the Aceraceae or maple family, is also the specific cause of an occasional case of hay-fever; shedding its pollen during April.

The paper mulberry tree (*Papyrius papyrifera*), which pollinates during May, is another fairly important cause of early spring hay-fever and asthma in the section under consideration.

The pollen of the elms (*Ulmus*), of which there are at least 3 different species in the Middle Atlantic States, causes some people to have hay-fever during March; the 2 most important species are the red elm (*Ulmus fulva*), which is also known as the slippery elm, and the American elm (*Ulmus americana*). The pollen of the red elm has an unusually pungent odor.

The poplars (*Populus*), of which there are at least 11 different species in the Middle Atlantic section, cause some of the hay-fever during March and April. In my experience the cottonwood (*Populus virginiana*), which pollinates in April, is the most important member of this group.

The ash trees (*Fraxinus*), of which there are at least 5 different species encountered in the Middle Atlantic States, are to blame for an occasional case of hay-fever during April and May.

Although I have mentioned the most important producers of early spring hay-fever in this part of the country, any other variety of wind pollinated tree may be the causative agent in individual instances. The common fruit trees, such as the apple, cherry, and peach, are all insect pollinated, and therefore are of no importance in the hay-fever problem. Before leaving the subject of early spring hay-fever, I wish to call attention to the fact that it is not necessary to go in the woods in order to come into contact with large

quantities of tree pollen, because of the many thousands of trees lining our city streets and decorating our parks.

Late Spring or Summer. The season for this type, in the Middle Atlantic States, is from about the tenth or middle of May until the fourth or middle of July, or occasionally until the first of August. It is commonly spoken of as "rose cold" or "rose fever", but these are misnomers, as roses are rarely ever the cause. For the pollen of any particular plant to be the cause of true hay-fever it must be floating around in the air in sufficient abundance to be breathed in with normal respiration. In other words, only wind pollinated plants can be held responsible for hay-fever. Clover, daisies, dandelions, honeysuckle, roses, and all other brightly colored flowers with sweet odors, are insect pollinated. Even if a person should happen to be sensitive to rose pollen, which is unusual, symptoms of hay-fever could be produced only by intimate exposure to roses, and the effect would be transitory.

From testing a great many hay-fever patients, routinely, with a large number of different pollens, I learned that nearly all (about 12/13) of the late spring or summer hay-fever patients from the Middle Atlantic States are definitely sensitive, though in varying degrees, to pollen of the following 6 grasses: sweet vernal (*Anthoxanthum odoratum*), June or Kentucky blue-grass (*Poa pratensis*), orchard (*Dactylis glomerata*), perennial rye (*Lolium perenne*), redtop (*Agrostis palustris*), and timothy (*Phleum pratense*). A relatively small number (about 1/6) of the late spring or summer hay-fever patients react to the pollen of English plantain (*Plantago lanceolata*), also known as rib-grass or buckhorn, and a few (about 1/10) react to both plantain and grasses. The 6 grasses referred to, pollinate successively in the order named, sweet vernal commencing about the second week in May, Kentucky blue-grass about the third week in May, orchard about the fourth week in May, perennial rye about the last week in May or the first week in June, redtop about the first or second week in June, and timothy about the second week in June. Although these approximate dates of pollination were deter-

mined in the District of Columbia and vicinity, they apply with minor variations to the entire Middle Atlantic section. Plantain begins to pollinate about the same time as the grasses and continue until about the first of August. In other words, the period of pollination of the 6 grasses and plantain coincides exactly with the late spring or summer hay-fever season in the Middle Atlantic States. Furthermore, those grasses and plantain grow in great abundance in this locality, and are wind pollinated. Their pollen grains, being light and dry, are floating around in the air in large numbers, and under favorable conditions are carried long distances by the wind.

An occasional case of summer hay-fever in this locality is due to sheep sorrel (*Rumex acetosella*), which begins to pollinate about the second or third week in May.

Fall. The autumnal, or fall, hay-fever season in the Middle Atlantic States is from the middle of August until the arrival of frost. This time corresponds to the period of pollination of ragweed (*Ambrosia*), which is the cause of practically all of these cases. There are 2 varieties of ragweed in this section, namely, the dwarf or short ragweed (*Ambrosia elatior* or *artemisiacfolia*), and the giant or tall ragweed (*Ambrosia trifida*). Giant ragweed pollinates from about the second week in August until about the third week of September, and short ragweed pollinates from about the third week in August until frost, which usually occurs in the first part of October.

Very occasionally a patient will react to short ragweed and not to giant, and extremely rarely one will be found to react to giant and not to short; but almost all of the fall hay-fever victims react to both varieties.

Ragweed is a dirty-green weed that grows abundantly on vacant lots, along road-sides and river banks. It thrives best in soil that has been cultivated and then not used for a time, such as an abandoned corn-field, or an old garden plot.

Giant ragweed, also spoken of as horseweed, grows best in moist soil, and ranges in height from 5 or 6 to even 10 or 12 feet under favorable conditions. The leaves of this variety are distinctive in that they are definitely

three-lobed; hence the botanical term *Ambrosia trifida*.

Common or short ragweed varies from a few inches to from 3 to 5 feet in height. The leaves branch and re-branch, resembling those of wormwood or *Artemisia*; this form of ragweed is known, therefore, as *Ambrosia artemisiæfolia*.

Golden-rod has been erroneously held to be the cause of fall hay-fever, but this plant is insect pollinated, and can cause symptoms, therefore, only on intimate exposure by very sensitive patients. People developing sneezing and running of the nose on going through the fields in the fall of the year, see the bright yellow *golden-rod* and, naturally, assume that to be the cause of their trouble, *completely ignoring the dull, insignificant ragweed which is the true offender*. Patients frequently report that smelling golden-rod causes them to sneeze, but this is almost always due to ragweed pollen clinging to the golden-rod, and not to the golden-rod pollen itself. Other common insect pollinated plants that bloom in the fall are aster, cosmos, dahlia, golden-glow, and sunflower; whereas, the ragweeds are wind pollinated. As previously stated, the only pollens that commonly produce hay-fever symptoms of any duration are those that are floating around in the air, and can be breathed in with normal respiration.

Diagnosis. The symptoms of hay-fever are so well known that I need scarcely describe them. Briefly, they are as follows: itching, burning, redness, and watering of the eyes; sneezing, irritation and running of the nose, and the nasal discharge being usually thin, clear and watery; alternating at times with complete stoppage of the nostrils by the swollen mucous membrane; itching deep in the ears and far back in the roof of the mouth; a feeling of fulness in the head; and general prostration. Very frequently, an irritating cough sets in toward the end of the hay-fever season, and in some cases the irritable cough lasts well into the winter. About 50% of all hay-fever victims develop asthma at some time in the course of the pollen disease; and, when present, asthma is by far the most distressing symptom.

The diagnosis of true seasonal hay-fever is

made partly by the individual's history, which is usually about as follows: symptoms of hay-fever occurring annually somewhere between March and October (March, April, and May for trees; May, June, and July for grasses and plantain; and August to October for ragweed), which symptoms are worse on dry, sunny, dusty, windy days than they are on damp, wet, rainy days (rain tending to wash the pollen from the air); worse in the early morning hours, and in the evening, and particularly just before a storm, because of the increased amount of pollen in the air at those times; aggravation of symptoms by proximity to certain trees, tall grass, or weeds, and likewise worse in the country than in the city; definite aggravation of symptoms from a train trip or an automobile ride through the country; relative freedom at the sea-shore except when there is a land breeze; complete freedom during an ocean voyage; complete freedom for the autumnal patients in northern Canada and Europe where there is no ragweed. In contrast to the fall or ragweed cases, the patient with late spring or summer hay-fever cannot obtain freedom by going abroad. As a matter of fact, grass hay-fever is the prevalent type in Europe and England.

Skin tests. The diagnosis of true seasonal hay-fever, suspected from the history, may be confirmed by skin tests, or, occasionally, mucous membrane tests, the technic of which has been described in another article. The chief objections to the intracutaneous or intradermal method for routine pollen tests are as follows: it is somewhat painful, it gives a number of non-specific or false reactions, and it is dangerous (severe constitutional and even fatal reactions have been reported). The cutaneous or "scratch" method, on the other hand, is practically painless, does not tend to produce non-specific reactions, and is perfectly safe even for the most sensitive patient. In the cutaneous method, minute linear incisions (not scratches) about $\frac{1}{8}$ in. long and not deep enough to draw blood, are made with the tip of a small, sharp scalpel on the flexor surface of the arm and fore-arm, the skin having first been thoroughly cleansed with 50% alcohol. In routine testing for pollen sensitivity, I have found it more satisfactory

to use the pure dry pollens instead of pollen extracts. A small amount of each of the pollens to be tested is applied to a separate incision on the patient's arm and dissolved with a drop of tenth-normal (0.4%) sodium hydroxide. When the causative pollens have been determined, the corresponding pollen extracts should also be tested, to aid in estimating the degree of sensitivity of that particular patient, and the suitability of the extracts for treatment purposes.

A positive skin reaction to the pollen of any plant means that the patient is sensitive to that particular pollen, and that sufficient exposure to the same will usually cause hay-fever. On the other hand, a negative skin reaction almost always means that the patient is not sensitive to that particular pollen, and therefore does not have hay-fever from this source. *Each patient should be tested with the pollens of all of the plants whose period of pollination coincides with his hay-fever season*, including any insect pollinated plants to which he is intimately exposed. Other than pollens, he should be tested with every substance (orris root, foods, animal epidermals, and fungi) to which the slightest suspicion can be obtained in the course of an exhaustive history. However, in most of the cases of late spring or summer hay-fever in the Middle Atlantic States, it is necessary to test only with the 6 grasses previously referred to, and plantain; and in most cases of fall hay-fever, it is necessary to test only with short and giant ragweed.

Patients sensitive to one member of a botanical family will usually react to other members of the same family, and may even react in lesser degree to the members of an adjacent family; these are known as group reactions, and are due to similarity in structure of the protein molecules of the pollen grains. Therefore, knowledge of the botanical relationship of the various plants is very helpful in handling hay-fever.

There are few seasonal hay-fever asthma patients who are not sensitive to any pollen, food, animal epidermal, fungus, or orris root, but whose trouble is due primarily to bacterial infection, and probably bacterial sensitization. This bacterial type of seasonal

hay-fever may be differentiated from true pollen hay-fever by the following: the symptoms are not usually limited to the period of pollination of any particular plant or group of plants; these cases frequently occur in changeable weather of early spring or late fall; definite eye symptoms are usually absent; the nasal secretion is more likely to be thick, and yellowish in color; the symptoms are usually worse on damp, rainy days; cutaneous, intradermal, ophthalmic, intranasal, and hypodermic tests with pollens are negative. For these patients, autogenous vaccine therapy is indicated.

Treatment. My method of preparing pollen extracts and treating seasonal hay-fever and asthma has been described in detail in a recently published article (Jour. Allergy, 3:180, Jan. 1932) and need not be repeated here.

For treating the oak-sensitive patients, I have been using an extract prepared from $\frac{1}{4}$ mixed oak pollen and $\frac{1}{4}$ each of black, white, and red oak pollens.

It has been claimed by Scheppegegrell and others that treatment with timothy pollen extract will suffice for all forms of grass pollen sensitization. I am opposed to this view, for several reasons. In the first place, I consider that patients should be treated with an extract of the pollen or pollens that are the cause of their own hay-fever. Now, timothy does not begin to pollinate, in the Middle Atlantic States, until about the second week in June, and yet the grass-sensitive patients, as a rule, start to have definite symptoms about the second or third week in May. These early symptoms must be due to the early grasses, and it seems logical, therefore, that they should also be included in the treatment. Furthermore, it is generally agreed that when the extract of a single pollen is to be used for treatment, the dominant reactor should be the one selected. Certainly, in this locality at least, timothy is not always the dominant reactor, as patients are frequently encountered whose dominant reaction is to one of the other 5 grasses previously mentioned.

Co-seasonal. Undoubtedly the ideal method of treating seasonal hay-fever is specific pre-seasonal treatment started far enough in advance of his season to get the patient as com-

pletely desensitized as possible before pollination of the offending plant or plants. However, for those patients who present themselves for treatment just before or during their hay-fever season, co-seasonal treatment with specific pollen extract is clearly indicated, and gives extremely gratifying results. The initial dose of pollen extract is the same in co-seasonal as in pre-seasonal treatment. In co-seasonal treatment, however, instead of regularly increasing the doses, the smallest dose is given, throughout the season, that will produce a satisfactory 24 hr. local reaction, and is increased only when it fails to produce such satisfactory local reaction. Each patient treated co-seasonally is instructed at every treatment that if he receives no benefit from that particular treatment, he is to return the next day, at which time another treatment is administered with the same instructions. If relief follows any given treatment, however, he is instructed to report for further treatment only when he begins to slip back, or in other words, when the effect of the treatment begins to wear off. Co-seasonal treatments are thus given at irregular intervals, from a day to a week apart, depending upon the amount of relief obtained from the individual treatment.

A good many physicians, who are staunch supporters of pre-seasonal pollen therapy, still harbor the false belief that the co-seasonal specific pollen treatment of hay-fever is of little or no value. The only objection that has been raised to specific co-seasonal treatment is with reference to the injection of pollen at the same time that the patient is inhaling it from the air. In answer to this objection, I would call attention to the fact that it is frequently necessary to treat perennial hay-fever patients with an extract of some protein while they are inhaling the same substance. For example, in patients with perennial hay-fever or asthma due to sensitization to their own house dust, it is almost always necessary to treat them with an extract of the house dust while they are breathing the same substance. Also, patients sensitive to the animal epidermals, orris root, and other air-borne allergens, are frequently either unable or unwilling, due to occupation or other reasons, to avoid contact with the particular offending substance while

they are being specifically treated. Treating a patient during exposure to the offending substance does not necessarily prevent desensitization, but I am willing to admit that treatment under these circumstances is more difficult, as greater care must be exercised in regulating the dosage. Furthermore, in case there is an aggravation of symptoms, it becomes necessary to determine whether or not it is due to treatment. In regard to this point, I would say that where an aggravation of symptoms occurs that is due to treatment, it usually follows shortly after the treatment, and the more severe the reaction, the sooner it follows the injection. Also, aggravation of symptoms from treatment is almost invariably accompanied by a marked local reaction; namely, an inflamed, swollen arm. If sufficient care and judgment are used in regulating the doses, however, it is very rare that any aggravation of symptoms occurs from treatment.

In addition to specific pollen extracts, I find that a stock mixed "cold" vaccine containing the common respiratory microorganisms, and a concentrated peptone extract, are valuable aids in the co-seasonal treatment of hay-fever. A pollen treatment should not be given while there is any visible reaction from the preceding pollen treatment, although a bacterial vaccine or a peptone injection may be given at such time in the opposite arm. The bacterial vaccine seems to be most effective when the patient's temperature is above normal, and the peptone extract when the temperature is sub-normal.

The initial dose of bacterial vaccine is 0.1 c.c., and the subsequent doses should be increased so as to produce a satisfactory 48 hr. local reaction from each vaccine treatment. The same rule applies to vaccine treatments as to pollen treatments; namely, not to give another injection of vaccine so long as there is any visible reaction from the preceding vaccine treatment.

After finding any but the most concentrated peptone solutions unsatisfactory, I prepared a sterile 50% peptone extract, which has given excellent results; this peptone extract is given undiluted, the initial dose being 1 minim injected intradermally, the second dose usually 2 minims intradermally, and the third 3 min-

ims either intradermally or subcutaneously. If additional peptone treatments are necessary, the dose is usually increased by 1 minim each time, depending upon the reaction in that individual. The intradermal doses are injected in the flexor surface of the fore-arm. All doses larger than 3 minims should be given subcutaneously in the upper arm.

Palliative. Ephedrine is the most valuable drug that we possess for the symptomatic relief of hay-fever, either seasonal or perennial. It may be used locally in the form of a nasal spray or drops, or taken internally. For local use, it is best prescribed as a solution of the alkaloid in oil, for when this is sprayed into the nostrils, in addition to the beneficial effects of the ephedrine, a protective coating of the oil is formed over the surface of the mucous membrane, which thus tends to prevent contact by the irritating pollen grains. For oral administration, ephedrine hydrochloride or sulphate may be prescribed in capsules, tablets, or in a 3% aqueous solution. The adult dose is from $\frac{3}{8}$ to $\frac{3}{4}$ gr. (12 to 24 minims of the 3% solution). The dose for children is from $\frac{1}{4}$ to $\frac{1}{2}$ gr. (8 to 16 minims of the 3% solution). Ephedrine hydrochloride contains about 5% more of the alkaloid than ephedrine sulphate.

PRACTICAL PHASES IN UTILIZATION OF THE CLINICAL LABORATORY

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The simplest concept of health is to regard it as a state of perfect, frictionless performance of function. In the same manner, disease may be looked upon as a condition manifested by evidences of disturbance or loss of function.

Complicated as is the practice of medicine—in which term is included all that has to do with the recognition, management, and control of disease—and subject as it is to the ebb and flow and flux of the changing concepts consequent upon constant study and in-

vestigation, it is obvious that it is dependent for success primarily upon the formation of a correct diagnosis. The first problem confronting the physician, then, is recognition of the mechanism underlying the functional abnormalities presented by the patient; in a word, to make a diagnosis.

While occasionally this may be but a simple problem, more often it develops such unlooked for complexities and such diverse ramifications as to tax clinical skill and acumen to the uttermost. For it can be said with certainty that the recognition of any specific pathologic entity as responsible for symptomatic manifestations is less often, and undoubtedly with less certainty, achieved by inspiration than by a thorough and pains-taking consideration of *all* the possibilities which come within the knowledge and recollection of the observer. Nor can it be over-looked that the number and diversity of these are in direct proportion to his ability to detect in the patient *all* the manifestations of disease, no matter how cryptic or how minor, and to attempt their correlation with as many possibilities as the broadness of his information includes.

Fortunately for the physician confronted with a puzzling diagnostic problem, modern developments have brought to his aid a variety of methods for determination and measurement of the reaction to any abnormal stimulus. Among the more important, as well as the most generally utilizable and commonly applied, are those embodied in the resources of the clinical laboratory. Unfortunately, however, these are neither always intelligently utilized nor wisely interpreted. So many and so rapid have been the advances made in the field of clinical pathology within the last decade that only assiduous study enables a clear and concise appreciation of their extent and significance, while the fact that many of their important developments have appeared in the more specialized, technical journals of relatively restricted circulation has rendered their dissemination and clinical assimilation a matter of relatively slow diffusion.

It is, perhaps, largely for this reason that there has developed a regrettable tendency on the part of some—a tendency, be it said most

loudly and vehemently decried by the clinical pathologist—to ascribe to laboratory studies a paramount rather than an ancillary importance in the study of disease. The clinician should not appeal to the laboratory for a diagnosis but for information which can be used in the formation of a diagnosis.

It is unfortunate that laboratory procedures are so commonly spoken of as *tests*, for the common use of this term has brought with it an insidious connotation which ascribes to these methods the status of tests for the presence or absence of disease; and this in turn has given to “positive” findings an unwarranted diagnostic significance and to “negative” reactions a fallacious value as indicating absence of the disease in question. This, of course, is an entirely erroneous conception and one not without elements of danger. The methods of the clinical laboratory are simply and solely methods for eliciting information—obtainable in no other way—about the patient, and his reactions to varied stimuli, known and unknown, and which may or may not be pathologic in origin. As such, they should constitute but a *single phase* in the examination and study of the patient. It should never be forgotten that *there are no pathognomonic laboratory tests!* All must be intelligently utilized, as well as wisely interpreted, to be of any value whatsoever.

The fact that certain reactions occur rather consistently in a certain disease does not render them diagnostic *per se* of that disease, and even more fallacious is the conclusion that because they are absent the disease is also absent. Reaction to disease is not a phenomenon, nor a set of phenomena, dependent solely upon the disease, but is regulated and influenced to a very marked degree by ability of the patient who has the disease to react to its stimulus. There are, therefore, no set formulas for the reactions, discoverable by laboratory examinations, as all will be governed by the capacity to react and the idiosyncrasies of the patient upon whom the examinations are made. It is greatly to be preferred, as well as highly conducive to a better clinical understanding of the relation of the clinical laboratory to the study of disease, to discard

the concept of “laboratory *tests*” in favor of the phrase “laboratory *examinations*” as better expressing their true place and function.

Having thus defined the terms of the problem at hand, as it were, it is the purpose in this discussion to consider briefly certain factors influencing practical utilization of the clinical laboratory, and to suggest in outline ways in which it may be used to the greatest advantage. It is not always appreciated, for example, that success or failure of laboratory procedures depends to no small extent upon the proper collection of the specimen. A smear is useless if it is too thick to see through; the examination of sputum may be entirely misleading if the specimen is not true sputum—material coughed up from the lungs—but is nasopharyngeal mucus hawked up from the mouth mixed with saliva; and blood chemical analyses are a waste of time if the patient has just had a hearty meal. These are obvious errors, it would seem, too trite to warrant mention, but they are practical difficulties common to the experience of every clinical pathologist responsible for dissatisfaction with laboratory reports and complaints that laboratory examinations furnish little information of value.

A first and important prerequisite toward the practical and informative utilization of the resources of the clinical laboratory is to select, from the multitude of methods available, those which are the most apt to elicit information of clinical value and significance; and particularly is this essential when the economic status of the patient does not permit lavish expenditures for laboratory work. This selection is not always easy and yet the difficulty may be easily surmounted if it is remembered that the clinical pathologist is not merely a manipulative expert limited to familiarity with test tubes, reagents, and other laboratory equipment, but a physician engaged in a highly specialized phase of the practice of medicine.

Confronted with a puzzling situation and uncertain as to how the clinical laboratory can be best used—if, indeed, it holds any promise of aid—the clinician may well regard the clinical pathologist as a consultant

from this angle and draw from his specialized knowledge information as to what course it is best and most advisable to pursue. There is little basis for any reluctance to take such a course for it means simply to apply to the laboratory phase of a particular situation the same common sense which brings to the clinician's aid the specialized knowledge of the surgeon, the internist, the laryngologist or any other colleague. Were it followed more closely, many a patient would be saved unnecessary expense and many a physician unwarranted annoyance at the failure of the laboratory to be of use in helping to solve his diagnostic problem.

A second essential prerequisite to the best use of the clinical laboratory involves clinical understanding of possible sources of error and also of the various factors which may influence the reaction in question.

The third important essential embodies realization that laboratory reports express merely the *status quo* and are applicable merely to the specimen at hand. They do not necessarily unveil the past nor do they guarantee the future. Failure to appreciate this has been the source of much clinical confusion and complaint, as may well be illustrated by everyday experience. It is unnecessary, for example, to ask for a "complete blood count" when the real question at issue is the leukocytic reaction to disease; only a tithe of the information available is to be had in the study of anemia when only the erythrocyte count and hemoglobin determination are requested and the equally, if not more, informative study of the red cells in the stained smear is passed by. There is no meaning in the phrase "complete blood chemistry", nor any real value in chemical blood analyses without real bearing on the clinical situation.

Very often, indeed, the most important part of the laboratory requisition is omitted—the presumptive diagnosis which many times may indicate modification of the methods to be used, the inclusion of special procedures—as in bacteriologic examinations, for example—or the addition of others which the experience of the pathologist teaches him may furnish the clue sought for. All that

the laboratory can give to the clinician will never be obtained consistently if all that is consistently asked for is a completed laboratory report.

We may now consider certain aspects of practical importance in the more commonly used laboratory procedures.

The lowly urinalysis, perhaps, is among the most frequently used of all laboratory examinations, although by no means the most informative. In fact, as usually applied, to the morning specimen collected after a period of 8 to 10 hours' rest when the bodily metabolism has been at a low ebb, it may be very misleading. Although this is the specimen most often submitted for examination, I believe it to be *the least useful*, certainly far less so than one collected late in the afternoon when the kidneys have borne the brunt of the day's activities as well as the burden of excretion following 2 meals. This applies, of course, to the single voiding. Much to be preferred is the collective urine gathered over a 4 or 8 hour period—either of which will furnish practically all the information afforded by the 24 hour collection of old. Albumin and sugar, when found, should always be quantitated, as thus furnishing a basis for comparison of future findings. Extreme variations may be encountered, sometimes leading to the assumption of laboratory error. Before such an assumption is reached, all the factors in question should be thought of and considered.

I have been called upon to reconcile, for example, an unexpected finding of 6% sugar, with a total absence of sugar 3 days later, and have found the explanation in the fact that the reason for the first examination was an acute gallstone colic following which the patient went to bed and entered upon a self-prescribed starvation diet unknown to her physician.

A sudden drop in albumin content from 1200 milligrams per cent one day to 50 milligrams per cent on the next, was another source of discussion. The answer was found in the fluid intake and outgo on the 2 days; the urine on the first being scanty and concentrated, and on the second, following forced fluids, being

largely diluted. When the percentage finding was computed to actual excretion, the startling discrepancy disappeared.

A similar discrepancy is sometimes accounted for by the fact that the protein in one specimen is adventitious and largely due to vaginal discharge, the second specimen being catheterized.

Exceedingly low 'pthalein outputs, and especially when little or none is detected during the first hour, should always give rise to the suspicion that injection of the drug was subcutaneous rather than intramuscular, as a result of which its transport to the kidney is delayed far beyond the time allotted to the test.

These incidents illustrate and emphasize the importance, in evaluation of laboratory results, of a consideration and correlation of all the available data, clinical as well as laboratory.

The presence of leukocytes in perceptible number, when coupled with an absence of albumin, is sometimes a source of clinical comment when it is not remembered that 80,000 leukocytes per centimeter must be present for albumin to react qualitatively with the tests in common use. It is not always remembered, also, that as many as 15-30 red blood cells may be present per low power field without a coincident positive albumin reaction.

All these, in themselves, are little things but very often they are the source of incertitude as to accuracy of the laboratory reports or reliability of the methods used, thereby working an injustice upon both the laboratory and the laboratory worker. Their only preventive and remedy is a frank discussion. This confusion is not confined to urinalyses alone but may be encountered in the consideration of leukocyte counts. I have seen surgeons point with scorn to the low total and differential count in the presence of an appendiceal abscess, over-looking entirely the fact that the walled-off abscess was an effectual barrier to the toxic absorption without which leukocytosis is not apt to occur.

If the clinical findings do not seem compatible with the leukocyte reaction—be it a

leukocytosis, a leukopenia, or a count within the normal range—check it, by all means, by a repetition of the count. But, see to it that the recount is made within a reasonably short time, for it is neither incongruous nor impossible for a leukocytosis to approach the normal, or a normal count to become a leukocytosis, after 24-36 hours or even less; no more incongruous than for the temperature range to show as marked if not greater fluctuations within the same period. Remember, too, that the leukocyte reaction to a given stimulus may be far more marked in children than in adults and that children below the age of 8 normally show a lymphocytosis.

It is of practical value, also, to recall that the most common cause of leukocyte counts over 25,000 is pneumonia, and that marked lymphocytosis—60 to 80%—suggests pertussis, the administration of pertussis vaccine, or leukemia. Which of these possibilities is correct will never be told by the leukocyte count alone. It must be correlated with the clinical history and the clinical findings.

The value of proper interpretation of leukocyte counts can be illustrated by a case of traumatic intestinal perforation following minor violence to the abdomen and in which there were absolutely no physical findings and the patient was vehement in his desire to return to work. The leukocyte count was 9000 but there were 98% of polys and marked "shift to the left". In this case, surgeon and clinical pathologist collaborated by the bedside and operation revealed 2 small perforations about which a beginning peritonitis was obvious.

Perhaps the most serious situation created by misuse and mal-interpretation of laboratory procedures is in the field of serology, in the application of the Wassermann and precipitation tests to the study of syphilis, as a consequence of which untold numbers of individuals are stigmatized as syphilitic and condemned to years of treatment and observation solely because of what, after all, is only a piece of paper bearing the symbol "+4 reaction", while others, within whose tissues spirochetes lie hidden and dormant, are sent their cheerful way because a similar scrap of

paper bears the magic word "negative". This, indeed, is the most mishandled of all laboratory procedures but its adequate discussion cannot now be entered upon.

Just a few words may be devoted, in passing, to agglutination reactions. Probably every clinical pathologist at one time or another has been asked: "Just what strength positive Widal reaction is diagnostic of typhoid fever?" The answer is: "There is no such thing as a diagnostic Widal reaction." Because the Widal test is not a test for the presence or absence of typhoid fever but a procedure the purpose of which is to demonstrate the presence or absence in the serum of *agglutinins* for the typhoid bacillus.

Their presence, as indicated by a positive reaction, may signify: (1) That the patient has had typhoid vaccine within the past few years. (2) That he is a carrier of the typhoid bacillus. (3) That he has had typhoid fever—recognized or unrecognized as such—in the past. (4) That he is suffering from this disease when there is a concomitant acute infection, the symptomatology of which is consistent with typhoid fever.

It is apparent, therefore, that it is not the strength of the reaction but all the circumstances attendant upon the reaction which determines its ultimate interpretation..

Of definite significance is the *trend* of the reaction as determined by its repetition in 7-10 days, for an increasing strength, as shown by a rising titer, demonstrates an increasing production of agglutinins, and this in turn predicates presence of the antigen, the typhoid bacillus. Of equal importance, is the fact that the Widal reaction may be negative in the early stages of typhoid fever when sufficient time has not elapsed for agglutinin production, and also the fact that rarely agglutinins may not appear in the blood until convalescence is well advanced. A positive Widal is not *per se* proof that the case is one of typhoid fever, nor a negative reaction sufficient proof that it is not.

It is of practical value in the laboratory study of this disease to recall that the blood culture is positive in 90% of cases when taken during the first 10 days after appear-

ance of the symptoms, the incidence of positive cultures decreasing in direct proportion to duration of the disease; that the agglutination reaction becomes positive in an increasing incidence after the first 10 days; and that late in the disease the organisms are best sought for in the urine and feces.

There are 3 diseases in which the presence of a definite agglutination reaction even though of moderate degree—that is, beyond 1:40—has a fairly clear-cut diagnostic significance, namely, undulant fever, tularemia, and typhus fever. In this last, the reaction, though diagnostic, is non-specific, the organism agglutinated not being the cause of the disease but belonging to the non-pathogenic proteus group of bacilli. This is the so-called Weil-Felix reaction named after its discoverers.

Modern developments in the chemical analysis of blood have greatly aided in the study, diagnosis, and control of disease but have also been the source of some confusion because their indications and limitations are not always clearly understood. It requires a rather extensive familiarity with these procedures to enable selection of the procedures most directly applicable to the problem at hand and a thorough appreciation of their limitations to interpret their results to the best advantage.

It is profitable, therefore, to discuss in a brief and general way, their more outstanding practical applications. There is little doubt but that the average hospital laboratory expends much time, labor, and material in the conduct of blood chemical analyses which are of little clinical value and which furnish little, if any, useful information. This is, perhaps, largely the result of what, unless checked, becomes a frequent and pernicious request; namely, the request for "a routine blood chemistry". This phrase has, literally, no meaning to the laboratory and the only conclusion to be drawn from it is that whoever ordered it is snatching at straws in a difficult situation or has little understanding of the indications for chemical analysis of the blood. All this means unnecessary expense to the hospital or the patient or both and is hard to justify.

Every request for blood chemistry should be specific in nature and should have in view the acquisition of specific information relating to various phases of functional efficiency or inefficiency, or to corroborate or rule out a diagnostic possibility.

To this end, the following suggestions may be of value.

The results of chemical analysis of the blood are always reported in terms of milligrams per 100 c.c. of blood. As all the normal findings are based upon analyses made upon blood taken after a 12-18 hour fast, examinations for clinical purposes should be taken, as a rule, under similar conditions. This does not apply to patients in coma, however. It is also useful to recall that, if necessary, chemical determinations may be done if the specimen is collected not sooner than 4 hours after the ingestion of food.

Incidentally, as the blood must be in a fluid condition when received in the laboratory, it must be collected in the presence of an anticoagulant, such as potassium oxalate.

Blood chemical analyses are, perhaps, most frequently used in the study of renal deficiencies and in diabetes. Theoretically, in the case of renal disease, determination of the non-protein-nitrogen should be more valuable than determination of the urea nitrogen, as the former contains all the compounds retained by the kidney in uremia. As a matter of fact, however, because of the direct proportion between them—the urea nitrogen both under normal and abnormal conditions being always approximately 50% of the non-protein-nitrogen—the determination of urea nitrogen suffices and is to be preferred because it is simpler, less expensive, and may be more rapidly completed. As the clinical significance of both is the same it is unnecessary to order both urea and non-protein-nitrogen determinations on the same patient. As a matter of fact, it is a good working rule to determine the phenolsulphonphthalein excretion first in a case of suspected nephritis and to resort to chemical analysis of the blood only when the 'phthalein test shows definite abnormalities.

All the information necessary to determine

the degree of renal impairment, as well as the prognostic inferences to be drawn from it, may usually be had from a simultaneous determination of the urea nitrogen (*or* non-protein-nitrogen) and the blood creatinin content. The urea nitrogen retention serves as an index of the presence of renal functional inefficiency and the creatinin retention is evidence of its degree and the extent to which recovery is probable.

A creatinemia consistently above 5 mgm. per cent is strongly suggestive of a fatal termination, *except* when there is renal obstruction, as from stone, when even a marked creatinemia is without prognostic significance if the obstruction can be removed. While hypercreatinemia is usually indicative of an early fatal termination, this rule is not invariable. I have seen creatinin values of 11-14 mgm. per cent persist for 6 weeks in a child before death and values of 20 mgm. and over for a period of 2 months in a man before death occurred in uremic coma. As a working rule, creatinin determinations may be omitted unless the urea or non-protein-nitrogen are approximately double the normal values.

There is practically only one real indication for the determination of uric acid in the blood: gout, or the suspicion of gout. It furnishes no real information of clinical value in any other condition. Determinations of the blood calcium are indicated routinely only in the presence of tetany; sometimes in the presence of spasmophilia associated with rickets, as in rickets as a rule, the blood calcium is normal; rarely, in fractures where non-union is thought to be associated with disturbances of the calcium metabolism. The relation of calcium to blood coagulation has led to studies of the blood calcium content in conditions in which coagulation is prolonged, such as jaundice, but these are still in the experimental stage and without clear-cut clinical applicability. There is one other indication for the determination of calcium in the blood, which, however, is only infrequently encountered, and that is for regulating the dose of parathyroid hormone.

Phosphorus determinations are of use only in the study of rickets and tetany, and chlo-

ride determinations are useful only in the toxemia frequently seen in conjunction with disturbances of gastro-intestinal motility. They are of little value in the study of nephritis.

As shown by the studies of Rockwood and Anderson, the indications for chloride determinations, which under these circumstances may well be combined with determinations of non-protein-nitrogen and the carbon dioxide combining power, are:

(1) All cases of partial or complete obstruction of the gastro-intestinal tract. (2) All cases of peritonitis showing general toxemia. (3) Protracted vomiting from any cause. (4) Burns showing marked toxemia. (5) All cases showing marked abdominal distention associated with marked toxemia. This, because in all this group there is generally a marked alkalosis associated with a fall in chlorides and a rise in nitrogen.

Indications for determination of the carbon-dioxide combining power of the blood are: (1) Diabetic patients with diacetic acid in the urine. (2) Uremia with dyspnea and nitrogen retention. (3) Toxic patients receiving alkali treatment. (4) Tetany of all types. (5) Disturbances of gastro-intestinal motility with toxemia.

Blood sugar determinations are warranted, of course, only in diabetes, or suspected diabetes, or hypoglycemia. In the differential diagnosis of glycosurias of uncertain origin the glucose tolerance test is of great value but not always easily interpreted unless carefully applied.

Hermann, who has recently reviewed the status of the glycemic tolerance curve in the study of glycosuria, has so clearly stated the important diagnostic criteria to be considered in using the glucose tolerance test, that they may well be paraphrased here:

(1) Never determine the fasting blood sugar, nor do a fasting blood sugar test until the patient has been on an ordinary mixed diet, without carbohydrate restriction, for at least some days or weeks. (This because the diet preceding the test may exert a very material effect upon its results.)

(2) Use a reliable arterial method and within the first hour collect samples at 10, 20,

and 30 minutes, since the peak of the rise for the most part occurs at these periods. It is, in a measure, astonishing that determination of glucose upon capillary blood specimens has been and is being so slowly adopted in this country, although accurate methods are available. There seems to be a reluctance to abandon venipuncture for this purpose, no matter how often it must be done.

Hermann calls attention to the fact that the arterial method should be the method of choice because:

(a) The blood sugar content of the renal arteries must be the decisive factor in the production of glycosuria.

(b) Arteriovenous differences up to 50 mgm. are not unusual 30-60 minutes after the ingestion of glucose.

(c) Venous values are lower than arterial values in alimentary glycosuria.

(d) To catch the peak of the rise samples must often be collected at very short—even 5 minute—intervals.

(3) Except in persons over 40 years of age, or in the presence of febrile diseases, anemia, cerebral hemorrhage, or hyperthyroidism, the normal fasting blood sugar (venous or arterial) should not exceed 110 mgm. per cent.

(4) Give 1 gm. of glucose per kilogram of body weight, administered in 10% solution after a 12 hr. fast.

(5) Remember that under these conditions the normal tolerance curve of arterial blood should not rise above 200 mgm. per cent and should fall to 110 mgm. per cent at the end of 2 hours.

(6) In any case where, in the presence of glycosuria, the curve shows any abnormality the type of glycosuria should be determined by threshold determinations.

(7) A fasting blood sugar over 110 mgm. per cent is strongly indicative of diabetes. It is well, in doubtful cases, not to be satisfied with a single fasting sugar determination but to repeat them over a period of months.

(8) All patients showing a normal fasting sugar, but a pronounced hyperglycemic curve of long duration, should be regarded as suspicious and put under observation.

(9) In abnormal cases of doubtful origin the type of sugar excreted should be determined by its chemical reactions.

The determination of bilirubinemia is of primary importance only in jaundice, the icterus index being as useful as, if not more than, the more complicated Van den Bergh. The studies of Elton, as yet experimental, suggest that icterus index determinations may eventually prove of prognostic importance in pneumonia, but so far this is only a suggestion.

We have outlined above some of the factors related to the practical utilization of the clinical laboratory and suggested in a very cursory and incomplete fashion, some of the difficulties encountered in application of its methods to the study of disease. What can be said of their remedy? The following suggestions have been made before and may well be repeated:

(1) Proper selection from the many methods of laboratory examinations those most likely to supply information of clinical value. In other words, laboratory requisitions should be preceded by a marshalling and segregation of the diagnostic possibilities; should be based upon the inherent probabilities of the particular case, and an understanding of the pathologic mechanism involved in production of the clinical phenomena, and designed to furnish evidence for or against the probable diagnosis.

(2) Specimens should be properly selected, and collected, and examined by qualified individuals.

(3) Results of the examinations, which constitute only a part, a *phase* of a thorough study, must be interpreted in conjunction with *all* information, by whatever means obtained.

Formation of a diagnosis, with the subsequent elaboration of an intelligent plan of treatment, evolves from the collection, analysis, and correlation of minutia, of data procured by various means and from diverse sources. It is essential, therefore, for the physician to be familiar with the means, methods, and sources for acquiring this necessary information and capable of utilizing and

applying the interpreted results to the problem at hand.

It is apparent to the most casual observer that the busier the practitioner, the more often he will require a varied investigation of his cases; and the less time, to mention only one requirement, will he have available to collect at first hand the information sought. The more necessary will it become, then, for him to utilize the specialized services of skilled associates. We may expect of him that he shall suspect the existence of a neurologic condition or the presence of a malignant neoplasm, but we cannot demand of him in all contingencies the specialized training necessary to render a possible diagnosis absolute. It may, however, be demanded that he shall take advantage of all means available to establish or rule out a diagnostic possibility, as, for example, by consultation with a colleague of particular skill in such matters, of thorough utilization of the various avenues of laboratory investigation of significance, pro or con. It may even be said, all things being equal, that one index of the thoroughness with which a diagnostic problem is studied, is the degree to which the resources of consultation are utilized, and the care with which every possibility is investigated.

To seek corroboration or elimination of a possible diagnosis is not a confession of ignorance but a manifestation of wisdom; to pretend knowledge in the face of doubt or to neglect a thorough study is little less than criminal.

Considering the care with which consultants are, or should be, chosen, the value justly given to skill, training, past experience, and general reputation, one is sometimes at a loss to explain the carelessness attendant upon the selection of a clinical pathologist by the average general practitioner. He who selects his surgeon or his radiographer with meticulous care chooses his laboratory consultant haphazardly. Perhaps this is due, in no small measure, to an ill-advised confusion of the laboratory and the pathologist, to the habit of looking upon the two as synonymous and interchangeable terms, whereas nothing could be further from the truth. The scalpel and

the surgeon or the radiographer and his apparatus are not transposable, though one is complementary to the other, and the same is true of the clinical pathologist. The clinician should demand of the pathologist not only training and skill required to insure accurate and reliable findings, but, in case of need, the ability based upon experience, reading, medical education and clinical training necessary to render him available as a consultant, either from the standpoint of indicating the plan of laboratory approach most likely to be informative, or of assisting in the clinical evaluation of the results obtained.

Unfortunately for the practitioner who carelessly casts his laboratory work to the winds; who chooses because it is labeled "laboratory"; because it is near-by, pretentious in appearance, or persistent in self adulation; the necessity for extensive use of laboratory methods has resulted, by what Webster has called "the fearful concatenation of circumstance", in a mushroom growth of "laboratories" not always indicative of nor accompanied by the coincident presence of a clinical pathologist, by which term is denoted a physician of clinical training and experience devoting himself to pathology as a specialty. All too often the "laboratories" clamoring for the physician's "business" are entirely lay-owned and lay-manned, seeking by an obtrusive display of glittering apparatus and the clamorous use of technical patter, to "varnish nonsense with the charm of sound". To him who, unthinking, holds the test to be the thing; who believes that technicians can be trained in a few weeks to cover the entire

range of laboratory procedures; the words of Oliver Wendell Holmes may be recalled: "Knowledge, like timber, should not be much used until it is seasoned." The practice of clinical pathology is the practice of specialized medicine, and the technician can no more replace the clinical pathologist than the nurse or the first year student can supplant the physician.

The training of technicians is restricted entirely to methods, and, just as the clinician places the responsibility for his operations only on the surgeon, so should he place the responsibility for his laboratory studies only on the clinical pathologist. And just as he chooses his surgeon on the sole basis of skill and experience, so should he demand equivalent qualifications from his laboratory consultant. He should appreciate, also, that to the layman the laboratory is merely a business, while to the clinical pathologist, it is a profession of equal dignity and learning and subject to the same ethical and professional responsibilities as any other branch of medicine. The physician who calls the laboratory by 'phone to discuss a report or talk of a patient should realize that he is in consultation with a professional colleague and should demand that this be understood, so that he shall not find himself debating professional problems with lay technicians who may later, perhaps, be "consulting" with a cultist or even a quack. The practitioner should always be in a position to know who does his laboratory work and be fully cognizant of his training and ability. Less than this is an injustice to the patient and an indictment of the physician.

JERSEY LIGHTS

(By Sylvia Satan, copied from the Saturday
Review of Literature.)

Around the cities' golden-bubbled brim
Rivers of seething light stream and entwine,
And bright-foamed eddies on the highway's rim
Distil upon the night a sparkling wine.

From far-off hills the graven cup of thought
Dips down unto festooned and trellised brink.
But luminous pools like this have only brought
Sharp, sparkling sting to lips untrained to drink.

To all that scintillant froth, that gold-brewed whirl
Of city wine-press bring the Thirst not nigh,
For on the rippling incandescent swirl
The circling beads are hollow-spun and dry.

Though mind dips down unto the liquid light
And pours libation from the lucid spark,
Take from the welling rivers of the night
Deeper assuagement from the vital Dark.

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All papers, news items, reports for publication and any matters of medical or scientific interest, are sent direct to The Editor, Dr. HENRY O. REIK, Vermont Apartments, Atlantic City, N. J.

All communications relating to reprints, subscriptions, extra copies of the JOURNAL, books for review, advertisements, or any matter pertaining to the business management of the JOURNAL are sent to THE CHAIRMAN OF THE PUBLICATION COMMITTEE (address above), Newark, N. J.

SETTING THE RECORD STRAIGHT

In the Newark Evening News of March 17, we read the following news item from its own Bureau in Trenton:

"Dr. James B. Kelly, of Jersey City, has been re-appointed to the State Board of Medical Examiners. His last term expired July 18, 1930, but despite recommendation by the State Medical Society that Dr. Kelley be re-appointed, Governor Larson refused to re-name him. Kelley's name, with 2 others, were certified to Governor Larson for the appointment, but the others advised the Governor they were not interested and the society failed to substitute other names.

Dr. Kelley was serving as secretary of the medical board when his term expired in 1930, but he resigned from that post and was succeeded by Dr. James J. McGuire, of this city, who has continued in that office. Dr. Kelley, however, continued to serve as a member of the board.

According to the records of the Secretary of State, Kelley was re-named by Governor Moore to the board for the term prescribed by law, which was fixed by the State Department as March 3, 1935. There appears to be some dispute whether Dr. Kelley does not serve out the unexpired term, and the medical board, to clear up the situation, will ask the Attorney General for an opinion."

Our readers will notice more than one error in the above—and, at that, we have already eliminated several in the course of reproduction. To begin with, Dr. Kelley's name is "Charles"—not "James". The mistake of transcendent importance, however, is not a matter of spelling, but of mis-information; and concerning that point we deem it advisable to properly inform all members of the State Society.

The law which concerns the appointment of our representatives upon the Board of Medical Examiners, provides that when a vacancy occurs, by death or, as in this instance, by expiration of a member's term, the Medical

Society of New Jersey shall nominate and send to the Governor the names of 3 of its members, and that the Governor shall select and appoint one of those nominees. Governor Larson exhibited a deeper interest in politics than in the health of his constituents. He not only refused to appoint Dr. Kelley, but tried to force the Society to submit another list of names. Dr. McBride, as President of the State Society, refused to do so, and Dr. Sommer, upon succeeding to the presidency, supported the decision and contention of his predecessor. Furthermore, the Welfare Committee, the Board of Trustees, and in turn, the House of Delegates of the State Society, each and all unanimously backed the stand taken by Presidents McBride and Sommer; and since the last annual meeting, President Hagerty has been just as ready to "carry on".

The law in question is perfectly clear, and so far as the Editor knows the Governor and his aides never seriously disputed that point—though, with the politician's characteristic adroitness, attempting to interpret the wording to their advantage.

The victory won, in Kelley's re-appointment, is an important one, and the Ex-Governor cannot be allowed to escape responsibility for his action through any reputed lack of interest on the part of the 2 other nominees, as alleged in the news-item reprinted above. The contest concerned the moral and the legal right of the Society to designate its representatives on the Board, and the victory is both—a moral victory and a legal victory.

FALSE OR MISLEADING MEDICAL ADVERTISING

The Editor's views upon this question should be fairly well known, to readers of this Journal at least, because of the frequency with which he has written or spoken upon the subject, and the occasional recommendation in his reports that some action be taken by State, County, or Auxiliary organizations. In so far as he has been able, personally, to challenge the conscienceless advertisers—as in the matter of cigars and cigarettes—the results have been encouraging, but the necessary performance of other tasks has not left him with sufficient time at his disposal for following up attacks or inaugurating others. He still hopes, however, that some day the organized profession will take action.

As a matter of fact, the present moment seems to be especially opportune for dealing with the news-papers and the new advertising medium—the radio. We refer to the daily papers because many of them have recently been appealing to the profession to purchase advertising space, and that affords an excellent opportunity to “tell them a few things” that might be “good for their souls”—if news-paper business managers have souls. We refer to the radio because it is at present the most blatant and daring distributor of dangerous advertisements the world has ever known, and governmental agencies and some “better business” organizations are now considering methods of restricting broadcasting privileges.

When dealing with news-papers concerning the character of advertisements carried, their spokesmen are prone to take refuge behind the excuse of having themselves been deceived, or of having no accurate standard by which to determine the truthfulness of advertisers, and that position is well handled in an editorial, to follow herewith, from the New York Medical Week, of May 7, under the title: “A Dual Responsibility.”

A DUAL RESPONSIBILITY

A recent editorial in the *World-Telegram* takes up the cudgels for truth in medical advertising by appealing to the authority of the Federal Food and Drugs Act and the Food

and Drug Administration of the U. S. Department of Agriculture. There is no question that the government could exert a greater influence than it does in behalf of honest publicity and the *World-Telegram* is justified in asking whether its agencies are “powerless or merely inert”. If the nation lacks the statutory means of protecting its citizens against published fraud, the deficiency is easily remedied. Indifference to the principle of strict enforcement is a more difficult obstacle to overcome.

The entire responsibility for the deplorable situation which exists with respect to medical advertising cannot be laid to governmental dereliction. Aside from requirements of the law, the press itself has an obligation to the public which demands that advertisements appearing in reputable publications contain no exaggerations nor untruths. It is in vain that the *World-Telegram* seeks to exonerate the news-papers on the ground of unfamiliarity with scientific values. Certainly in New York ignorance is no excuse. The Medical Information Bureau has kept the technical resources of organized medicine within easy reach of the press for a number of years. And that is equally true of nearly all cities and large towns in the United States. Governmental compulsion would not be necessary if the publicity media themselves recognized their moral accountability for the caliber of their advertising.

WILL YOU HELP TO PREVENT, OR TO ALLEVIATE, HAY-FEVER IN YOUR COMMUNITY?

Among the “Original Articles” in this issue of the Journal is one concerning the etiology of hay-fever, explaining the pollen theory of causation, classifying, naming and describing the various trees and plants the pollens from which serve to produce the spring, summer and autumnal types of hay-fever, and indicating how such affections may be prevented or in some degree controlled.

As an introductory to the Woman's Auxiliary department, is an article describing the

work of a Texas County Society Auxiliary which devoted its energies to the eradication of weeds recognizable as producers and disseminators of hay-fever-inducing pollens.

Will the State Society and its Auxiliary, or some of our members and their respective county society auxiliaries, accept this as a task and contribute to the welfare, comfort and happiness of their suffering neighbors and friends—and, incidentally, to the beauty of their surroundings?

Here is another task worthy of the Auxiliary, and we hope it will be considered, and adopted—at least in some communities.

WHAT PRICE GLORY

(A Burlington County Society report having indicated that the Secretary of that organization had done some sound thinking on this subject, we asked him to prepare an editorial for the Journal, and the result was the following contribution prepared by Drs. George T. Tracy and Joseph M. Kuder; for which we thank them.—Ed.)

If the census statistics and the previous post-war epochs of history can be accepted as reliable criteria, the medical guild and our much harassed and long-suffering government may be expected to unite in giving free medical care to a group of citizenry, amounting, in the next generation or so, perhaps to $\frac{1}{2}$ our present population.

This questionable state of Utopia is having its inception in the action of the American Legion—or, at least from a portion of it—in adopting, as part of its national program, *"free medical and hospital service"* for its members, *"whether the illness has any connection with service or not"*. The beauty of this thought is enhanced by the decision to *"request the government to extend this care to the wives and children of veterans"*.

Just why this idea should be promulgated only after a sufficient period of time has elapsed to allow a succeeding generation to arrive at the age of adolescence, is hard to understand—unless the financial depression has activated the cerebral processes in the group of agitators whose self-interest has propagated this monstrosity of intellect.

The enormous cost of such an undertaking could, obviously, well be absorbed by a Fed-

eral Treasury surfeited with funds which it finds difficult to utilize: but in any event, reimbursement might conceivably be suggested in the form of taxation, by which analgesic process the physician would be asked to draw from his right trousers' pocket money for taxes to put in his left trousers' pocket, as remuneration; which amounts to the privilege of working for nothing. As statistics have as yet failed to prove that the Veterans of the American Legion, as a class, pay any major portion of the total Federal Income Tax, this additional financial burden would naturally be allocated, in the main, upon those who already pay the greater portion of taxes but who would derive no benefit whatever from this increase in the budget.

If the American Legion can "muscle in" on this new type of "racket", there seems to be no good reason why physicians should not request the Government to provide food, gasoline and automobiles wherewith to lighten their financial burdens. In the World War, just as large a proportion of physicians fought the bloody conflict in or west of Hoboken, as did any group from any other profession or calling. In fact, just as large a proportion of physicians went across the pond. They made exactly the same personal, business and financial sacrifices as did any of their compatriots.

We begrudge veterans nothing whatever for any disability sustained in active service; but we fail to appreciate the moral obligation of providing free medical care for colds, appendicitis, or other ailments having no relation to active war service, and to extend the same attention to their families, many members of which were not acquired until after the war was over.

We have more than 4,000,000 veterans in the United States. They are given free medical, surgical and reconstructive treatment by a grateful government. Immense hospitals are being erected all over the country, to be devoted solely to their care. The United States of America is spending more money for the relief of veterans than the total combined number of all the other nations that were engaged in the World War. Calvin Coolidge reminds us that during the past 50 years this country has, alone, done more than all

other countries on the face of the earth put together, in all history, for the care of its veterans. And the history of the Civil War shows that this enormous expenditure will continue for 100 years. Furthermore, the present European economic situation is such that in the end we are likely to find that the United States will be the Santa Claus who eventually will foot most of the bills for the war.

If the 4,000,000 veterans, 14 years after the war, are married, it will mean 8,000,000 dependents. If each family averages but 2 children, it will mean that 16,000,000 people— $\frac{1}{8}$ of our total population—will be given free medical care at the expense of the Federal Government.

Is it not time for our profession, and the nation at large, to protest loudly, and to have *the Federal Government restrict its activities* along these lines *to such medical, surgical and hospital attention* as is required *for disabilities acquired in actual service*, and of which our veterans are eminently deserving? But to extend such service indiscriminately to all types of ailments, acquired since and irrespective of actual service, and to apply it to millions who cannot even plead a service record as a reason for any type of disability, is to bring medical practice perilously near to *state medicine*, and to evolve an undeserved group-exemption, at the expense of increased and unwarranted generalized taxation.

GROUP ADVERTISING

Several years ago, the Editor participated in a Symposium on Business and Professional Ethics; the other participants being Drs. John Hammond Bradshaw and John Bennett Morrison, and the occasion being a meeting of the Passaic County Medical Society. It fell our lot to contrast the methods and practices, in respect to business dealings, of physicians and

merchants (tradesmen). The details of our argument need not now be repeated, for at the moment our concern is with, or about, the sole factor of *superiority* of the *physician's principles of barter* over those of *business*. Since that event we have been perhaps more keen than previously in picking up criticisms of medical business ethics by commercial institutions and agencies; some of which think nothing of insultingly criticizing our code at the very moment when they are seeking favors, or business profits from our hands.

For instance, many county society officers have been approached during the past 2 years by news-paper representatives whose purpose was to sell advertising space to the society. The ad solicitor not infrequently accompanied his sales talk with a denunciation or a ridiculing of our ethics, pointing out the code's antiquity as a fault hindering progress.

At a county society meeting of recent date, we said of such a procedure that falling for an argument of that tenor 3 years ago might have been excusable, but that it could not be so easily excused today. Advertising—flamboyant—deceptive—false—anything to indicate high-pressure selling, was said to be the foundation stone of *big business*; \$1,000,000 *bonus* on top of \$1,000,000 as a year's *salary*, we were told, to the man who constructed *the most deceptive sales-talk ever put out*. What a rotten foundation for business! Is it any wonder that big business is now in such a deplorable condition? If *big business* has nothing better to offer us than the *results* it derived from *advertising*, we had better hold fast to our *centuries-old code*.

SPECIALISM

Your attention is hereby directed to the last page of this Journal—the only available space for immediately presenting a notice of an important question to be considered at the Annual Meeting.

Annual Report of the Treasurer

1932

PERMANENT FUND

DR.		CR.	
June 1, 1931—		May 31, 1932—	
2 M 1st Liberty Loan 3½% bonds	\$2000.00	2 M 1st Liberty Loan 3½% bonds	\$2000.00
4 M 4th Liberty Loan 4¼% bonds	4000.00	4 M 4th Liberty Loan 4¼% bonds	4000.00
Mortgage Certificates, Investors Title & Mortgage Guarantee Company	2700.00	Mortgage Certificates, Investors Title & Mortgage Guarantee Company	3000.00
Mortgage Certificate, Trenton Mortgage & Title Guarantee Company	3000.00	Mortgage Certificates, Trenton Mortgage & Title Guarantee Company	3000.00
June 2—		Certificate of Deposit, First National Bank of Paterson, 3½%	3000.00
Cash from Reserve	3000.00		
August 31—			
Cash from General Account	300.00		
	\$15,000.00		\$15,000.00

GENERAL ACCOUNT

RECEIPTS		PAYMENTS	
Balance, June 1, 1931	\$24,521.13	For Publication Committee	\$14,492.92
Assessment—		“ Publication, special (Addressograph)	297.87
Atlantic	\$1682	“ Welfare Committee	852.51
Bergen	2630	“ Credentials Committee	427.78
Burlington	695	“ Board of Trustees	40.02
Camden	1793	“ Executive Department:	
Cape May	247	Salaries	\$14,000.00
Cumberland	624	Travel	2,000.00
Essex	9704	Office and rent	3,640.37
Gloucester	468		19,640.37
Hudson	5752	“ Treasurer's Office	64.75
Hunterdon	364	“ Secretary's Office:	
Mercer	2030	Salary	\$ 1500.00
Middlesex	1469	Expenses	2183.95
Monmouth	1225		3,683.95
Morris	1055	“ Printing and stationery	1,720.34
Ocean	260	“ Tri-State Conference	153.26
Passaic	2877	“ County Secretaries' Conference	145.43
Salem	182	“ Funeral flowers: Drs. Hunter, Mercer and Wilson	47.80
Somerset	598	Transferred to Permanent Fund	300.00
Sussex	247	Transferred to Executive Dep't Current Fund	200.00
Union	2909	Balance, May 31, 1932	29,767.75
Warren	273		
	37,084.00		
Publication Committee	8,857.59		
Interest	1,370.18		\$71,834.75
Health charts sold	1.85		
	\$71,834.75		

RECONCILIATION WITH THE BUDGET

Estimated Income	\$49,940.00
Credit on assessment, \$2 per capita	5,412.00
	\$44,528.00
Actual Income	47,313.62
Appropriations	48,500.00
Expenditures	42,067.00
Operating Net Balance:	
Apparent	6,218.62
Actual	3,806.62

Respectfully submitted,

E. J. Marsh,

Treasurer

Medical Ethics

OUR ETHICAL COMPLEX

John Hammond Bradshaw, M.D., F.A.C.S.,
Orange, N. J.

"If we could first know where we are, and whither we are tending, we could better judge what to do and how to do it."—Abraham Lincoln's speech, Springfield, June 16, 1858.

Now, as the writer of this article takes it, this means that we should make a broad survey, and arrive at a keen understanding of any subject or of any problem, before taking definite action. Let us look at a few facts that have a direct bearing upon this, our professional problem.

At the Annual Congress of "The Association of Medical Education, Licensure and Hospitals" (Feb. 15, 1932), Dr. Bass, of New Orleans, read a paper on the subject: "Is the Medical Profession Over-crowded?" He tells us that such countries as Sweden, Belgium, France, Germany, England, Japan and Switzerland have an average of 1 physician to 1500 of the population; while here, in the United States, the proportion rises to 1 in 800 (almost double).

The problem is, moreover, complicated by the annual expenditure of \$715,000,000 in our country for nostrums and medicines (patent and otherwise), *not including our own fees*, and the support of an army of healers, including: 7650 osteopaths; 16,000 chiropractors; 2500 neuropaths; 10,000 Christian Scientists; and many other irregulars (not classified as M.D.'s) who are draining one quarter of a billion dollars (\$250,000,000), in addition, each year from the pockets of the people.* Some of these so-called healers resort to methods that would bring a blush of shame to the faces of honest men. The latter try to follow a calling modeled upon the oath of Hippocrates, and actually do attempt to mix the heaven of altruistic effort with their daily tasks.

The ever-increasing need for money is always with us. The struggle for existence still goes on; and it does not grow less intense. Thus, our economics and our ethics cannot be divorced. The physician, that is, the medical man who has spent long years and much money on his education in order that he may be *proud* of his "M.D.", is bound to take notice.

While "competition is the life of trade" remains a recognized maxim in the business world, too much competition in our ranks has

been known to drive some of the least stable members of the profession to the adoption of methods, in order to survive, which must, frankly, be termed *commercial*; the given excuse being that this is necessary to survival. Shall we describe that by using the word *un-ethical*? Now, does not that lower the standard of us all?

The writer has been repeatedly told by "high-powered salesmen" that by putting such and such an apparatus (which they sell) into his office equipment, his *cash* returns will be increased 10% at least. It may be easy after a decade of experience and active practice to say—"get thee behind me, Satan", but surely, we can understand and sympathize with the young, inexperienced doctor who, after months or years of patient and impatient waiting, lends an ear to such siren persuasion. There is no law in the constitution of his medical society saying that he shall not prosper; but, as he would in time learn even without our advice, the first false step begins in a semi-commercial professional practice.

In Lighter Vein

Score One for 'Arry

A coster pushing a hand-cart of shrimps, confronted by a parliamentarian in his limousine, was roughly ordered to get out of the way.

"Get out of the road yourself", returned the coster.

"You don't know who I am, evidently. I have M.P. at the end of my name."

"So has every blinkin' shrimp in this 'ere barrer of mine" was the retort.—Boston Transcript.

Three-Alarm Test

"Now", said the super-salesman, "this instrument turns green if the liquor is good—red if it is bad."

"Sorry, but I'm color-blind", apologized the prospect. "Got anything with a gong on it?"—Juggler.

Ouch! Pass the Lard

Bill—"Did your wife have you on the carpet for getting in so late last night?"

Jack—"Well, it may have been the carpet she had me on, but it seemed more like a red-hot stove to me!"—Cincinnati Enquirer.

In the Bargain List

Robert returned from school with his report card for his mother's inspection. "But, dear", she said, "what's the trouble? Why have you such poor grades this month?"

"There's no trouble, mom", was the quick reply. "You know yourself things are always marked down after the holidays."—Boston Transcript.

Referred to Mr. Einstein

"I don't know how to fill out this question."

"What is it?"

"It says, 'Who was your mother before she was married?' and I didn't have any mother before she was married."—Whirlwind.

* Figures furnished from Washington, D. C.

Lighthouse Observations

IRRADIATED MILK IN PREVENTION AND TREATMENT OF RICKETS

An interesting and very timely article by Esther B. Hardisty, B.A., C.P.H. (Arch. Pediat., 49:236, April 1932), is the source of this abstract: Rickets *per se* is one of the most disastrous, as well as one of the most prevalent, diseases of infancy and childhood. It leaves in its wake results that inhibit and discourage, to the close of his life, the proper mental and physical development of the unfortunate infant who becomes its victim. This being so, scientists and clinicians have searched unceasingly for a therapy which would be simple in administration and effective in results.

For many years, even today, cod-liver oil has been considered almost a specific in the prevention of rickets. However, the personal equation—the carefulness of the mother and her devoted adherence to the dosage instructions, as well as the baby's tolerance for cod-liver oil—has played its rôle in the prevention of this dread disease of infancy and childhood. The taste and odor of cod-liver oil, as well as its fat content, stand in the way of its continued use.

Hess, in speaking of the use of cod-liver oil and its value as an antirachitic agent, says: "For many years cod-liver oil was the most popular remedy, even before its efficacy had been clearly proved or definitely accepted. After a test of many years it would seem that its disagreeable taste and odor preclude its universal adoption; the fact that mothers dislike to give it to their infants precludes its general use. This winter we found that a large number of mothers attending the clinics did not give their infants cod-liver oil, although repeatedly urged to do so by the physicians and nurses in charge, and, furthermore, that only 5 were given the requisite dose of 3 teaspoonfuls (15 gm.) a day; many gave only 10 drops, or ½ teaspoonful daily. Another drawback, and partial disqualification attached to many of the antirachitic remedies, is their expense; a disadvantage which is all the more important during times of economic stress. The main disadvantage attached to these therapeutic measures is, however, that they depend necessarily on the coöperation and good will of the mother and are not automatic in action."

In this paper, Hess and his collaborators lay particular value on the fact that, with irradiated milk, many of the difficulties hitherto met with in the prevention and treatment of rickets are obviated. In their own words: "The merit of the method which we are bringing forward is that it does not require coöperation on the part of the mother, as the antirachitic factor is included in the food of the infant."

When, in 1924, Hess, of New York, and Steenbock and Black, of Wisconsin, discovered that foods could be irradiated by ultraviolet rays and thus become integral aids in the prevention of rickets, they gave to the armamentarium of medicine one of its best tools. Since that time, experimental and clinical tests have ably strengthened their first conclusions, and many foods have been "irradiated" as a natural consequence.

From the point of view of the pediatrician, no single discovery in nutrition for infants can supersede this latest contribution to rickets therapy.

When the unquestionable value of irradiated foodstuffs was recognized, the activation of milk

by ultraviolet rays to increase its antirachitic potency followed as a natural sequence. Investigators and authorities are agreed that 50% or more of children from the poorer classes are affected with rickets. Because milk is universally used in the feeding of infants, and because natural fluid milk is relatively ineffective as a specific for the prevention and cure of rickets, the importance of irradiating milk for infant nutrition can scarcely be over-estimated. Steenbock and Black have found that ingestion of the antirachitic factor, over a long period of time, is preferable and more effective in combating rickets than the maintenance of a high level of the antirachitic factor over a short period. One can readily see in the light of this conclusion the advantages that accrue from feeding infants a prophylactic dietary of irradiated milk, which is of necessity "over a long period of time".

A brief survey of the literature on the subject of irradiated milk as a preventive therapy for rickets having been made, Miss Hardisty presents the following:

SUMMARY AND CONCLUSIONS

(1) Since the disagreeable taste and odor of cod-liver oil preclude its universal adoption, irradiated milk should eventually become the antirachitic agent of choice.

(2) The fact that the consistent administration of cod-liver oil or any other antirachitic agent depends upon the mother or nurse remembering to give it, often results in the infant being deprived of help that would otherwise be given by these agents. On the other hand, when irradiated milk is given, the antirachitic factor is included in the food of the infant, and mothers do not forget to give babies their feedings.

(3) Irradiated milk must be activated under controlled conditions. There must be uniformity of irradiation.

(4) Milk is activated to a marked degree by exposure for but a few seconds to irradiation by the ultraviolet rays.

(5) Correctly irradiated milk undergoes none of the adverse effects, such as change of taste or odor, which are found in milk which has been exposed for longer periods of time.

(6) Irradiated milk retains its antirachitic potency over long periods of time.

(7) Irradiated milk is now being produced commercially and of a standard quality and uniformity.

(8) The incidence of rickets will be, it would seem, appreciably decreased if all milk given to babies is irradiated.

TONSILLECTOMY BY ELECTRIC KNIFE

In contradistinction to electric coagulation and piecemeal removal or shrinkage—an atrophic process artificially induced—some laryngologists have been experimenting with the "electric cutting apparatus". The following abstract is from a paper on that subject by Howard Everett Blanchard (Rhode Island Med. Jour., 14:85, June 1931), who said:

The first requisite to successful use of the *electric cutting current* is a properly constructed, resonant, high frequency outfit delivering the current whose character produces the result desired. Its proper and gratifying use demands a knowledge of the physics involved and a technic as rigid as the most exacting surgical procedure.

From a broad standpoint any form of electric

current, either direct, alternating or high frequency, of proper voltage, amperage and continuity of application will give the so-called electric cutting of tissues. Ordinary commercial current such as the 60-cycle alternating, cannot be used because if it is passed through the body, painful sensations are produced.

Instruments and technic. The apparatus used is similar to a radio transmitter and it is possible to send code messages with it up to a distance of 100 miles. The radio frequency circuit oscillates at 1,100,000 cycles per second and it may be stated that the tonsils are removed on a frequency of 1100 kilocycles and a wave length of 273 meters.

The only change necessary from the standard snare is the substitution of the metal canula carrying the stylet and snare loop with a bakelite or vulcanite canula for its insulating properties. This slips into the carriage of the Braun snaretome.

The operation may be performed equally well under local or general anesthesia. With the former, dehydration takes place more rapidly because a better electric pathway is made by infiltration of the tissues with Ringer's solution or normal saline. Under general anesthesia all ether containers, masks, gauze, etc., are removed to a safe distance and the operating room should be well ventilated. There is no spark in the throat and danger here is nil. More danger exists from the spark gap igniting an explosive mixture in the room; hence the free circulation of air.

The operator may wear rubber gloves if he desires but there is no real necessity for so doing if one does not complete the circuit by touching the indifferent electrode or the patient.

The first experimental operations were done by the dissection method with a snare to the base. This caused bleeding during the dissection, just what we were trying to eliminate, and then the current had to be applied in a wet field. Regulation snare wire was used and was not suitable, secondary hemorrhage ensuing in 5 to 6 days with the separation of the slough. With special wire and using the Braun snaretome technic, splendid results followed.

In this operation the tonsil is engaged in the wire-threaded fenestrum, and the blade of the guillotine pushed home by the thumb, keeping close to the anterior border of the tonsil to preserve the mucous membrane of the anterior pillar. The fingers of the other hand draw the snare loop tight, the blade is withdrawn and the guillotine is automatically freed. The active electrode is snapped on to the snare, the tonsil grasped with an Allis clamp for removal from its bed, the electric circuit is closed with a foot switch and the tonsil enucleated with the cutting current passing through the pedicle between the capsule and the pharyngeal aponeurosis in a little over a second, leaving a bloodless fossa.

The floor of the fossa is left smooth and the muscle is covered with a split pharyngeal aponeurosis, this fine areolar tissue assuming a pinkish gray appearance of light coagulation. About $\frac{3}{4}$ inch in width of normal mucous membrane, the whole length of the posterior pillar is left intact, its outer margin sharply defined against the gray background dipping down into the fossa.

On retraction of the anterior pillar the mucous membrane winds around the anterior pillar to the fossa, making a reduplication in its whole length. This conservation and non-mutilation of the tissues assures healing of the floor only, the pillars remaining separate and anatomically distinct and of normal flexibility. The fossa remains deep instead of shallow or altogether missing and the

cicatrix following healing after endothermy is soft and pliable. Any lymphoid tissue not removed at the base undergoes retrograde changes from being in contact with the active electrode and no further effort need be made to remove it.

Experience with this method in 300 cases shows it to be practical, with no untoward results and with the following advantages:

No hemorrhage, either primary or secondary; and avoidance of secondary anemia.

Markedly decreased traumatism to the fauces.

Preservation of normal anatomic relations.

Absence of scar tissue.

Diminished postoperative reaction, with rapid healing.

The dry field after removal of first tonsil makes it easier to engage the second.

The greatly reduced danger of septic infection, as the lymph channels are sealed, likewise pulmonary complications from infection and the aspiration of blood.

All of these advantages make for the safety and comfort of the patient, and remove from the surgeon's mind the element of doubt as to the immediate and remote effects of the operation of tonsillectomy.

(The Editor is not, personally, impressed by either of these articles, but offers them for consideration, because they present these particular propositions in the best possible manner.—Ed.)

Current Events

ANNUAL MEETING OF THE ESSEX COUNTY TUBERCULOSIS LEAGUE

The Third Annual Luncheon and Meeting of the Essex County Tuberculosis League was held at the Robert Treat Hotel, Newark, Wednesday, April 27. Among the guests of honor were John F. Hagerty, M.D., President of the New Jersey State Medical Society; and Henry O. Reik, M.D., the Society's Executive Secretary. Dr. Hagerty spoke briefly, extending a word of greeting to members of this Essex County organization.

A principal feature of the program consisted of a summary of the League's activities during 1931, given by J. B. Morrison, M.D., President of the League, who was later reelected for another year. He spoke of teaching health to school children, and of the need for health work among negroes, where tuberculosis death rates are much higher than among the white population. Dr. Morrison also touched upon the Industrial Health Work, the Summer Outings for under-nourished children, and tuberculosis nursing carried on by the League.

The address of the day was given by Iago Galdston, M.D., Executive Secretary of the Bureau of Information of the New York Academy of Medicine, and Consultant on Health Education for the National Tuberculosis Association, saying, in part: "Tuberculosis remains the outstanding health problem of the United States; not heart disease, cancer nor pneumonia.

Tuberculosis most often kills its victims at about 40 years of age; while cancer strikes at 60; and heart disease at 70. Although it is natural to treat all deaths alike, an early death is far worse, economically and socially, than one in later life. A man who dies of tuberculosis at 40 has had no chance to repay society for the benefits it has given him; he leaves one or more dependents for whom society often must care. Certainly such a

death is far more important, in many ways, than death of an older man.

The great decline in the tuberculosis death rate in recent years has been due primarily to the work of voluntary organizations. It is these groups which must continue the fight under the American form of government. New York has 500 fewer tuberculosis beds than it needs. It is not the people who will get the additional beds we must have to care for our sick; it is the voluntary tuberculosis organizations which will have to get them. Our organizations must continue the work with renewed vigor and not lag because the fight is half won. To stop now would be like firemen leaving a burning building because the fire is nearly out.

And, the voluntary organizations must do it because we have found that it cannot be done by government, by law. We never will be able to legislate the people into eating, sleeping, working and playing as they should. We have found we cannot even legislate their drinking."

Health Officer Charles V. Craster, of Newark, outlined the tuberculosis work of the Newark Health Department and praised the County League for its aid in educational work, saying: "Newark is known as one of the healthiest cities in the country, and this is the result of the work of all the health agencies in the city; not the city Health Department alone."

Dr. W. G. Alexander told of the preventive and educational work of the League among negroes, mentioning coöperation with other organizations in Newark, the Oranges and Montclair.

League health work in the parochial schools was praised by Monsignor William F. Lawlor, Superintendent of Schools of the Catholic Diocese of Newark.

Public Relations

PROPOSAL OF STATE MEDICINE

(In the column designated—"Letters to the Editor"—New York Times, April 25, appeared the following communication, signed: "Samuel A. Tannenbaum, New York." As we read it that morning there was little doubt in our mind that it had been written by a physician, and our suspicion was soon to be verified. In the Directory of the American Medical Association we find: Dr. Samuel A. Tannenbaum, 808 West End Avenue, New York City; born in 1874; graduated from Columbia University, College of Physicians and Surgeons, 1898; Member of A. M. A., through his state society; neurologist. Here is a frank proposition from a colleague, a definite plan for setting up *state medicine*, and we are reprinting it in the hope that every member will read it and think seriously about its import.—Ed.) Dr. Tannenbaum's letter follows:

MEDICAL COSTS

To the Editor of The New York Times:

In an editorial, "Medical Costs", The Times summarized the essence of what may be called "the medical evil". The lay public complains of being exploited by physicians; physicians complain, just as bitterly, of being exploited by the public. There is justice in both complaints.

The diagnosis and treatment of disease are much

more difficult matters than they were in the past. Modern scientific medicine involves the use of expensive laboratory equipment and coöperation of a number of specialists. Exactness in diagnosis and rational treatment are impossible without many expensive procedures. All this must necessarily add to the burden of the invalid and his family.

Medical philanthropies and public charities supply medical services at a cost with which physicians in private practice cannot compete. Consequently, many physicians throughout the country are today not earning a decent living. Mouths must be fed, clothes must be worn, and the rent must be paid. Irregular practices, too well known to need mentioning, are inevitable. A social system which permits the practice of medicine to be competitive, which forces the physician to adopt the methods of the business man, cannot expect anything else.

You say on the basis of a partial report of the committee on the costs of medical care that a practical way to a solution must be found. The Health Commission which was recently appointed by Governor Roosevelt reported that "a practical system of health administration suited to present conditions" can be devised. Neither you nor the commission attempted to suggest a "practical system", that is, a system which would insure to the public proper medical service at reasonable cost, and to physicians an income consistent with their work and commensurate with their investment. I, therefore, take the liberty to offer a "practical system" for the practice of medicine which logically meets all the difficulties.

(1) The practice of medicine on a competitive basis should be abolished. The health of the community being one of the main concerns of the community, it shall be the business of the state to administer medical services which shall include dental, pharmaceutical and nursing services to the sick.

(2) The funds for state medical services shall be raised by taxation, exactly as the funds for other public services.

(3) The state shall build and equip hospitals as it builds and equips schools. The term "equipment" includes personnel.

(4) State Medical Service and the hospitals shall be directed by a board chosen by the physicians, dentists, nurses and pharmacists who are on the state pay-roll. The members of the State Board shall hold office for 5 years and shall be subject to recall.

(5) All physicians shall, immediately upon graduation, become employees of the State Medical Service at salaries approximating \$2500 for the first 2 years, during which the physician shall be serving as an intern in one of the hospital units, and, after that, payment would be automatically increased at the rate of \$200 per annum till the physician attains the age of 45 years, when his salary would remain fixed until he was 60, when he could retire on two-thirds pay. No physician employed by the state could engage in private practice but physicians could retire from a state career at any time.

(6) Physicians employed by the state shall not be required to work more than 6 hours daily, nor more than 6 days a week. Time not devoted to treatment of the sick shall be devoted to medical social service.

(7) "Specialists" connected with hospital units shall receive fixed salaries of \$10,000 per annum. They would not only treat the sick but hold clinics

and train physicians to become specialists. Examinations for promotion to the rank of "specialist" shall be held at regular intervals.

(8) The wives and minor children of physicians disabled by illness shall be taken care of by the state.

The above plan, if adopted, will give the public the best medical care that medical science can give; it will cost the public very much less than what is being expended under the present system; and physicians will be guaranteed a comfortable and decent living. Signed: Samuel A. Tannenbaum.

"AN INSPIRATION AND AN INDICTMENT"

(From N. Y. Evening Post, April 7; equally applicable to conditions in New Jersey.)

Governor Roosevelt employs a striking but appropriate phrase when he characterizes the final report of the State Health Commission as "both an inspiration and an indictment". It is an inspiration in its review of what has been accomplished in public health in this state—the reduction of infant mortality, the virtual wiping out of typhoid fever, the prolongation of human life. It is an indictment in its finding that our present town and village system of health administration is wasteful not only of money but also of lives. To correct this condition, the report recommends that local health service in the state be reorganized by the substitution of the county for the town or the village as the local unit. It also makes recommendations regarding prevention and control of tuberculosis, proper care for mothers and children, service for the crippled and facilities for the diagnosis and treatment of cancer. Here is nothing less than a health program for many years to come. By the adoption of its central recommendation—reorganization of local health service—we can end such anomalies as the continuance of illness and death from diphtheria at a time when some municipalities have stamped it out and we can make the dollar which is spent for public health go farther than it goes now. By the gradual adoption of the other recommendations we can accelerate progress toward healthier and longer lives in both urban and rural districts.

AUTO ACCIDENTS AND VISION

(From Guildcraft, February, 1932, published by prescription opticians; dealing with a subject concerning which the Editor of this Journal has frequently spoken during the past several years.)

The recent publication by the Metropolitan Life Insurance Company of an illustrated pamphlet, "Seeing Is Believing", shows that deaths caused by all of the major diseases are definitely decreasing, while the toll of deaths and accidents from automobiles is sharply mounting. With this increasing hazard of the automobile has come a recognition of the need of adequate vision tests for licensed automobile drivers. In an effort to see the exact status of vision tests throughout the country, Dr. Morie F. Weyman, of Los Angeles, has examined the drivers' tests of each state. Thirty-three states have no vision requirement, while in those states that have such a requirement it runs from a high degree of acuity (20/30 in both eyes) to the mere ability to see ahead. Only in Maryland and Massachusetts is there a field of vision test. Maryland goes further in adding that each rejected candidate must go to an eye specialist of his own choosing for study and correction.

European requirements demand visual acuity of at least 20/40 in one eye and 20/20 in the other, while if sight is lost in one eye, the other must be 20/25. Field of vision must be normal, and there must be no marked diplopia and no marked diminution of light sense.

TEMPERAMENTAL DRIVERS

(Editorial, N. Y. Evening Sun, April 9.)

Connecticut's Commissioner of Motor Vehicles, Robbins B. Stoeckel, is philosophic in his opinion of what constitutes competence at the wheel of an automobile. He believes that one who is an egotist, or one who is unable to understand the problems of others, should never be licensed. As Mr. Stoeckel phrases it, "the automobile is a medium of expression of a man's mind"; therefore, it is unwise to entrust the operation of a car to persons who give way too easily to anger, to impatience, to over-confidence or to timidity.

Mechanical skill takes almost a minor place in Mr. Stoeckel's list of the accomplishments a driver should possess. He thinks that examinations for license should include tests of personality and courtesy, as well as of ability to stop and start a car, to turn out in traffic, to manipulate the steering gear. He would instruct the examiner to observe how an applicant manages clearances from other cars, how he passes from the rear, how he looks out for pedestrians and bicycles. If the aspirant for license fails to observe any of the "thousand and one directions which occur in the course of a short ride", if he "imposes his individuality upon any of these provisions", or in any form shows a tendency to disregard street signs, he "certainly ought not to be authorized to drive".

WE NOMINATE

(Editorial from the Wisconsin Med. Jour., June 1931.)

Somewhere among our American institutions, place should be made for those who have distinguished themselves for faulty reasoning. And for such a hall do we nominate the member who resigned from his county and state society "for the following reasons:

- (1) Too much county and state medicine.
- (2) Too much socialized medicine.
- (3) Too much nothing left for the private general practitioner who is the true foundation of the art."

We look forward with interest to the reforms *HE* will accomplish single-handed.

The resigning member should make the acquaintance of Mark Twain's character who advocated abolishing beds because so many people died in them.

School Health Department

NOTES ON ORGANIZATION AND ADMINISTRATION OF THE SCHOOL PHYSICIAN'S PROGRAM

Allen G. Ireland, M.D.

(1) *Objectives.* Objectives are essential. It is only the activity with a definite goal that gets results. Moreover, the definition of goals limits work to that which is purposeful. It reduces the wasting of time and effort and it minimizes duplication.

Objectives should be attainable. They should be ends that come within the possibilities of a program based upon known factors, such as time, facilities, and personnel. They should be so stated as to be understood by all persons concerned.

(2) *Program.* Given objectives, a program designed to attain them is necessary. Both are essential to an effective school health program.

It should be prepared jointly by the physician and the school administrator since it will be, by its nature, both medical and educational in purpose.

It should be specific in its provisions and definite in its statement of activities and responsibilities. Even details should be included, for it is *definiteness that dispels confusion and wasted effort.*

The program should be in writing. From time to time during the year, and always at the beginning of each school year, it should be reviewed for needed corrections or additions.

(3) *Administrative responsibility.* Superintendents, Supervising Principals, and Principals are the administrators of the public school system. In drawing an analogy from military organization, they are the *line officers* in whom executive authority is vested. Just as the army has its physicians, nurses, dentists, supply officers, and engineers, so does the school have its staff of professional aides, janitors, supervisors, and attendance officers. In both instances the essential factor is integration or coordination. It is necessary to efficiency of operation; to economy; to attainment; to harmony; and to proper delegation of authority. To effect integration is an executive function. It falls upon the school administrator, therefore, to coordinate all units of school activity, and, to that end, to direct the work of the school personnel. Since it is basic throughout, the school health program can be no exception.

The above concerns administration of the whole program, and of the personnel, to a common end. On the other hand, professional technics and judgments belong to the staff specialties, in the school as in the military establishment. Thus, *the medical aspect of any school health program is the peculiar province of the school physician. It is the physician's duty to apply his talent to the school problem and to report his findings and recommendations* which, in turn, are applied by the school administrator to further the health and educational purposes of the school.

Direction of all professional technics employed by the school nurse is charged to the *school physician*. Other activities of the nurse may well come under direction of a committee composed of the Chief Executive, the School Physician, and the Supervising Nurse. The complete program, including all rules and regulations, duties, and instructions, should be prepared in writing, made effective, and thereafter revised and approved annually.

In large school systems, and wherever more than one physician is employed, it is advisable to designate one physician as Chief of Staff who can be made responsible for the professional program.

(4) *Time allotment.* No standards are yet available. It is doubtful if the question—"how much time should the part-time physician be required to give to school work?"—will ever be answered satisfactorily. So many factors are involved that rarely will 2 school systems hit the same average. In a given system, the program agreed upon is, of course, the only criterion. The time required to execute its provisions fully and efficiently is the standard for that system; and it can be determined only by experiment.

Employment of a *full-time school physician* is

desirable, and such is the evident trend. Increasing recognition of health's place in education, and of the enlarging scope of the school physician's work, are indications that a demand for the full-time school health officer is inevitable. Small school districts will jointly provide themselves with this service.

In attempting to arrive at a satisfactory time allotment, an experiment could be carried on for one year. During that year a record could be kept of the time required of the physician; and with such record as a basis, the time schedule, salary, and number of physicians necessary could be determined.

(5) *Number of physicians.* City systems with well-established programs have each set standards fitting with their respective circumstances. It is not feasible, however, to accept any one ratio as a universal standard. The determining factors must be the work that is to be accomplished, the available funds, the school enrollment, and the distances between schools. Of these factors, the work program is the most important.

As a general observation, it is thought that in New Jersey the school physician is held responsible for too many pupils. Two remedies are possible: (1) increase the time allotment and the salary of 1 physician (or of 2); (2) increase the number of physicians. The first solution is preferred.

(6) *Salary.* The same indefinite situation pertains to the matter of salary, but on this point there is more hope for an ultimate solution. It is possible to conceive of a state or even a national agreement being reached after an extensive survey. The units most frequently cited, as the bases of remuneration, are, in addition to the straight annual salary, the month, the day, the hour, the visit and the pupil. The best and the fairest basis is the annual salary; least desirable, are the visit and the pupil.

It is generally conceded that the school physician is inadequately paid. There are grounds for optimism, however, for as the school health program grows in scope and in importance, the physician will inevitably receive fair and due recognition. In time, more and more will be expected of him. That is true, in fact, of the present. It resolves then, into a matter of enthusiasm, salesmanship, and effectiveness. A program, especially one dealing with health, does not sell itself. There must be the persistent drive of human effort behind it. Compensation will mount accordingly.

(7) *Coordination.* An important principle underlying school health work, one not as yet fully realized, is that of coordination. Every adult connected with the school, excepting secretaries and clerks, is to some extent involved in the health program. Teachers, for example, can fulfill the purpose of the school only in so far as pupil health permits. Freedom from handicaps to learning capacities and abilities is essential. Behavior and attendance are directly related to healthful states of mind and body. And the teacher's intimate daily association with pupils carries an obligation with respect to disease-control procedures and the effects of class-room hygiene.

Janitors are by the nature of their duties associated with an important phase of the health program. Attendance officers, particularly those with a sociologic point of view, have access to the facts concerning a pupil's home surroundings, habitats, companions, and outside activities, which is information of value to the physician, nurse, and teacher.

Physical education teachers, athletic coaches, lunch-room supervisors, visiting teachers, and the

dean of girls in the high school, are obviously dealing with the facts and acts of life that may make or mar the habits and attitudes of pupils.

It is exceedingly important that all activities of the school personnel be coordinated. Information known to one should be transmitted easily and promptly to all. It is the whole pupil that goes to school and it is the whole pupil—physical, mental, social, moral—that is involved in learning, growth, and development.

Consider, for example, the total situation as it might occur in a given case. When all the facts are at hand it will be seen that possible contributions to the study can be expected from each of the following: parent, physician, dentist, nurse, psychologist, psychiatrist, social service worker (or visiting teacher), class-room teacher, physical education teacher, home economics teacher (or lunch-room supervisor), special class teachers, and, possibly, the attendance officer when a social service worker is not available. Given the total picture, it is then possible to advise both the parent and the teacher as to management of the case with respect to attitude of approach, understanding the pupil, work-study-play assignments, rest, diet, eating habits, and health practices.

(8) *Treatment.* A definite policy with regard to the treatment of pupils at school should be established and its provisions interpreted to all persons concerned. As a general rule, the school should undertake to inspect, examine, investigate, and report—but never to prescribe or administer treatment.

Exceptions to the above general rule should be allowed only when such diseases as pediculosis, ringworm, impetigo, and scabies become a serious problem, and, because of the neglect of parents to seek medical care, the organization, attendance, and morale of the school is threatened. Ordinarily, however, pupils with such conditions should be excluded and the burden of treatment placed upon the family.

It is generally understood that the school health service may be responsible for emergency and simple first aid treatment. If there is any question concerning the definition of *first aid care*, the Medical Society should be asked to come up with such a definition.

Schedules. It is essential to school organization that the duties of the school physician be performed in accord with a definite schedule. Some flexibility is necessary because of the exigencies of private practice, but, in general, *adherence to the schedule* should be the rule.

State Health Department

TRACHOMA

J. Lynn Mahaffey, M.D., Director of Public Health,
Trenton, N. J.

Trachoma is a serious contagious disease affecting the inner surface of the eyelids, and if neglected, it is likely to cause prolonged suffering, and it may even lead to blindness; whereas, if properly and promptly treated, it may be cured or arrested.

Recent investigations show the disease to be much more prevalent in New Jersey than had been thought. It has been found in both city and rural districts.

The early signs usually are: smarting and watering of the eyes; a roughness of the inner surface

of the lids, giving a sensation of particles in the eye; and, granulated eyelids. In a given case, all those symptoms may not be present, and the eye itself may appear normal until the inner surface of the lids is examined.

Trachoma is easily confused with other, less serious, eye conditions, and in its early stages, expert medical examination is usually needed to correctly identify the disease. Contamination of others is effected by the discharges from affected eyes and trachoma is spread generally in that manner. Such discharges may reach the eyes of other persons by the use of towels, wash-cloths, wash-basins, handkerchiefs or pillow cases, which have previously been used by a person having trachoma. It may also be spread by one's fingers, or anything that comes in contact with the eyes of an affected person. Therefore, whatever is likely to be infected by a trachoma patient should not be used by another person until it has been boiled or otherwise disinfected.

Trachoma often develops slowly, and it may be very slow to cure. Persons having suspicious symptoms should secure expert medical attention without delay and, if found to have trachoma, should continue treatment as long as may be necessary.

Precautions to be taken by a person having trachoma follow:

(1) Use only your own towel, wash-cloth, soap and wash-basin; also your own handkerchief and pillow case.

(2) Keep the fingers away from the eyes as much as possible and wash your hands frequently.

(3) Do not touch things that other people use about their faces.

(4) Sleep alone.

(5) A person having trachoma should not, ordinarily, attend school or other public gatherings.

Communications

SOCIAL INSURANCE: QUALITY OF MEDICAL SERVICE DETERIORATES UNDER COMPULSORY HEALTH INSURANCE

(Fifth of a series of letters prepared and issued by Dr. Edward H. Ochsner, of Chicago. The Editor realizes that some of the statements in this letter are as justly open to criticism, or to argument, as are the statements made by others and brought under criticism by himself, but is presenting the letter as written, and will be glad to receive comments, on either side of the question, from our readers for publication later. We hope that Dr. Ochsner is intending to submit, in following letters, substantiating facts, for, otherwise, we shall have only 2 sets of opposing arbitrary, dogmatic statements.)

In preceding articles Social Insurance, as a whole, has been considered. In this and subsequent articles our observations will deal more particularly with *Compulsory Health Insurance*, one phase of Social Insurance. The chief danger to medical progress and efficient medical service to the American public comes from that small group who wish to establish lay bureaucratic control over the private practitioners of medicine and dentistry.

The state exercises a legitimate and proper function in public hygiene and sanitation: in the teaching of personal hygiene in schools and colleges; in the medical care of paupers, criminals, and the

indigent in general; but, whenever and wherever it has entered into the private practice of medicine, its service has always resulted in inefficiency. Even in institutional work, with the possible exception of University Clinics, the medical service rendered by the government is rarely excellent or even good, nearly always mediocre, and often even worse.

The health, happiness, prosperity, and efficiency of the citizenship of any nation depend more upon the integrity, ability, unselfishness, and enthusiasm of the medical and dental professions, and upon the quality of medical and dental services rendered to the people, than upon any other single factor. Any change in the practice of medicine and dentistry which will in any way hinder those professions from giving their best services will eventually react unfavorably upon the whole nation. That *state medicine* and *Compulsory Health Insurance* will actually and does lower the general quality of medical and dental services is supported by reason and experience. While it *may level-up* a little from the bottom, it *unquestionably levels-down* from the top; and it is this leveling down that will surely stop medical progress.

Medical progress depends not so much upon the rank and file of the profession as upon occasional great men with vision. If we unduly hamper those great medical minds, then, medical progress must cease. The quality of medical services received by the people in general depends in large measure upon the quality of teaching which the rank and file of the profession receive, and upon the enthusiasm and the ideals which are instilled into them by their teachers. Men of great ability can do their best work only if absolutely free, and a physician under lay bureaucratic control never is entirely free. Andrew Carnegie, one of the most successful men of modern times, in the best sense of that word, makes the following statement in his autobiography: "Thereafter, I never worked for a salary. A man must necessarily occupy a narrow field who is at the beck and call of others."

One of the continually recurring mis-statements, in the Compulsory Health Insurance propaganda, is that it encourages personal hygiene and consequently disease prevention. Nothing could be farther from the actual facts. Which person is more likely to take care of his teeth—the one who gets his dental services free, or the one who has to pay for it out of his own pocket? Those who claim the former, just do not know human nature.

One of the chief causes of wonder of the Germans during the World War was the splendid condition of the teeth of the American soldiers as against the almost universally poor teeth of the Germans. Why this great difference? The chief and principal reason is that American citizens have their teeth taken care of by private dentists who take a very personal interest in each individual patient. Most American dentists and physicians are spending much of their time instructing their patients in general and oral hygiene. Contrast this with the work of the *Krankenkasse* physician, of Germany, who asks his patient 1 or 2 questions, then reaches into a file, hands him a typewritten prescription, and gets rid of him just as quickly as he can, and as he must if he is to see 50 patients in an afternoon office period of 2 hours; and this he is by force of necessity compelled to do if he is to make a living for himself and his family at 12 cents per office consultation. Then again, the claim is made that Compulsory Health Insurance examinations are more thorough. This, too, is a statement contrary to fact and to reason when one realizes that the sort of office

consultation above described gives the physician the same pay as does a thorough physical examination. No man can afford to make a careful, pains-taking examination for 12 cents—not even in Germany, where living expenses are almost as high as in this country. One "*Krankenkasse*" physician in Berlin told me, personally, that he made 23 house calls in 4½ hours, or at an average rate of 1 in a little less than 12 minutes, driving from house to house, going up from 1 to 4 flights of stairs each time, examining a patient and prescribing for him.

Brend states that in England the average time spent by panel physicians in making a diagnosis is from 3 to 4 minutes. Another English writer in commenting on the above facts rightly observes that these are not abuses of Compulsory Health Insurance but inherent faults of the system.

We have all repeatedly seen and heard the statement that 70% of the American people—namely, the low and moderate income classes—are not getting adequate and efficient medical services. Where those who make this statement get their statistics no one has ever been able to find out. The fact is that there are no statistics available on this point. From this it must be evident that the only place from which they can get these figures from the depths of their fertile imaginations.

If we stop to investigate the source of these statements, we invariably find that they emanate from 2 classes of individuals; namely, a certain type of ultra-medical specialist whose only experience is or has been with the extremely rich whom he charges fancy, exorbitant fees, and with paupers whom he treats in charity hospitals. As a consequence, he has had no personal experience with patients with moderate incomes and has no right to express an opinion on this subject. The other class repeating these figures is composed usually of persons who never have had personal experience in the practice of medicine and whose opinions are practically worthless.

I maintain that the poorer classes of patients get better service in this country than they do in those countries of the world that have Compulsory Health Insurance, and that their medical requirements are at least as efficiently met as are their food, clothing and, particularly, housing requirements. This phase of the problem is an economic one and cannot be solved by a palliative such as Social Insurance.

(To be continued)

MENTAL HYGIENE

PRELIMINARY REPORT OF SURVEY OF HOSPITALS FOR NERVOUS AND MENTAL PATIENTS IN THE UNITED STATES

(Published in Jour. A. M. A., March 5, reprinted here by request of the Committee.—Ed.)

At the annual session of the American Medical Association held at Detroit in June, 1930, the House of Delegates, on the initiative of the Section on Nervous and Mental Diseases, adopted 2 resolutions relative to the care of patients suffering from nervous and mental diseases. One directed the Trustees to appoint a special Committee on Mental Hygiene. The other directed the Council on Medical Education and Hospitals to make an "investigation of all hospitals caring for mental patients within the next 1 or 2 years", in order to obtain "a more accurate knowledge of the situation", and to point out "the need of further developments".

The language of this second resolution describes a task intentionally limited as to time and scope, and preparatory to a larger work whose exact nature the preliminary task would help to determine. No such limits were imposed on the Trustees' Committee on Mental Hygiene, nor was there stated or implied any relationship between the functions of this committee and those of the Council. Four months later, the Council itself requested the Trustees' committee to "serve as an advisory committee to the Council", and, as a result of this action of the Council, the committee has come to be known as the Advisory Committee.

The five men composing the Advisory Committee are all Fellows of the American Medical Association, all well known psychiatrists, and all active participants in the affairs of organized psychiatry and mental hygiene. By virtue of their positions, they represent unofficially the 3 groups of federal, state and private mental hospitals, and also the private office practitioners, the clinical psychiatrists, and the medical schools. The Council's work in the mental hospital field has been planned and is being carried out in as close association with this committee as possible. At the same time, the essential coordination of this work with the other work of the Council has not been forgotten.

In the gathering of information, in all the Council's work with hospitals during the quarter century of its existence, 2 major procedures have stood the tests of time and accuracy: *the questionnaire* and *the personal visit*. The specific task of this report is to make known the results thus far obtained by the use of these 2 methods.

QUESTIONNAIRES

The work was definitely begun, Jan. 1, 1931. In consultation with the Advisory Committee, a questionnaire was prepared and mailed to the 561 institutions for nervous and mental patients listed in the Register of Hospitals. Of these 561 institutions, 416 have returned the questionnaires with the data asked for. (In this list we find New Jersey accredited with 20 hospitals; with a capacity of 15,551 beds; and an average occupancy of 14,426.) While returns from 17 states are already complete and those from the entire group are approximately 75% complete, questionnaires are still coming in and a more complete report will be possible at a later date.

In 22 states all the government-owned institutions addressed have returned the questionnaires; in each of 12 other states only 1 hospital has failed, and in each of an additional 9 states only 2 hospitals have failed. That is, in 43 of the 49 states (including the District of Columbia) all the federal, state, county and city mental hospitals except 30 have already returned the questionnaires, and many of those 30 hospitals will return them later. There are 6 states remaining to be accounted for. In 4 of these the returns have been between 75 and 80% complete; in the other 2 the returns are now between 10 and 20% complete.

In 25 states, all the private institutions have returned the questionnaires; in each of 8 other states only 1 hospital has failed, and in each of an additional 7 states only 2 hospitals have failed. That is, in 40 states all private institutions have made returns except 22, and we know that some of those will respond later. There remain 9 states to be accounted for. In all of these the returns to date are between 50 and 75% complete.

THE PERSONAL VISITS

Of the 561 institutions, personal visits have been made to 353. The conditions observed by the visitors can be reported more satisfactorily later, but a few general statements can be made now.

Of the government-owned group, the Veterans' Administration hospitals are, on the whole, comparatively new and well equipped, have relatively large medical staffs, and, apparently, give the individual patient good custodial and therapeutic care. Among county and city institutions, the great majority of those visited were found to be custodial in nature without any aspirations to the rank of hospitals. They are usually managed by laymen who are apparently intelligent and humane, interested in their work, and carrying it on in a reasonably acceptable manner. The question whether or not these insane asylums, frankly divorced from considerations of therapy, have a rightful place in a modern mental health program, is too complicated to be considered in this brief report.

In state hospitals, which are nearly 3 times as numerous as all federal, county and city institutions, personal contact with administrative heads revealed that over-crowding was almost universal. In several places it had been carried to a most deplorable extreme. Recreation rooms, living rooms and dining rooms had been made into dormitories. Beds had been placed on porches, in hallways, in attics and in basements. The lack of room was in some instances such as to rule out almost all classification on a basis of diagnosis or therapy, the only workable classification being on the basis of temperament; and without proper classification, adequate care is impossible.

In several of these state hospitals there were no hospital units, the word *hospital* being applicable to them only in the broadest sense of the term. Others had no separate receiving units. Some lacked the equipment for giving patients proper diagnostic or therapeutic care. The personnel in many was admittedly inadequate, attendants being both too few and too incapable, and the medical staff being greatly under-manned. In the presence of such conditions, no special knowledge or training was required for their discovery; indeed, if it had been required, many of the superintendents made it unnecessary by themselves calling the visitor's special attention to the conditions; the superintendents desired that such conditions be reported, in the hope that such a report might lead to their improvement.

Private institutions fall easily into 2 classes: the sanatoriums and the rest homes (sanatoriums being interpreted as places for therapeutic care, while rest homes are merely custodial). Nearly all sanatoriums were found clean, orderly, and apparently well conducted. They return a comparatively large percentage of their patients to active civil life, and they apparently merit the respect and support of the medical profession. While many rest homes meet a real need in a satisfactory way, others have no adequate medical supervision and their value as medical institutions is nebulous.

The language here employed is not intended to convey the impression that the Council's visitors are sitting in judgment over these institutions. No such purpose is associated with this preliminary survey, and the language of this report describes the *kind* and *amount* of work done rather than its *quality*. The use of the data returned by these visitors as a basis for the rating of institutions for mental patients is an idea that has no place whatever in the program now being carried out.

It would be hard to overemphasize the value of

the personal medical contacts that these visits to institutions have made possible. While personal visits have for years been included in the Council's work with hospitals, both general and special, in no other group of hospitals has the need of such personal contacts been so evident or the immediate results so gratifying. Visits have necessarily been brief, but the danger of inaccuracies in reports is minimized by use of the questionnaire, on which a superintendent makes his own report in writing, the superintendent's report and the visitor's report being checked against each other.

Little more need be said now regarding this unfinished task. With 353 visits made, there are some 200 more to be made. With 416 questionnaires already returned, 150 more are still to come in. The data thus secured must then be analyzed and interpreted. This study will be most carefully made, utilizing all the resources at our command. A final report will then be made to the House of Delegates.

VIOLATIONS OF THE MEDICAL PRACTICE ACT

(A letter from Dr. J. J. McGuire, Secretary of the State Board of Medical Examiners.)

The following is a list of the actions brought by this Board against illegal practitioners since our last report of January 2:

January 13, 1932, the license to practice medicine and surgery of Samuel Dixon Mayhew, of Wildwood, was revoked.

February 4, Sarah E. Wilson, manufacturer of the Wil-Du Remedy, of Pitman, was found guilty by the Judge of the Gloucester County Court of Common Pleas, of practicing medicine without a license.

February 4, Carmelo Cerina, a "bone setter", of Glassboro, pleaded guilty to a charge of practicing medicine without a license, before the Judge of the Gloucester County Court of Common Pleas.

February 5, Ernest Palmaffy, a naturopath, of Newark, was found guilty of practicing medicine without a license, by the Judge of the Irvington District Court.

February 9, Maria Capra, a midwife, of Union City, paid the penalty for practicing midwifery without a license.

February 9, Robert C. Bieri, an electrotherapist, of Union City, was found guilty of practicing medicine without a license, by the Judge of the First District Court of Jersey City.

February 10, Krakor Tekian, M.D., of Newark, pleaded guilty before the Judge of the First District Court of Newark to a charge of practicing medicine without a license.

February 18, Michael Palazzi, a chiropractor, of Netcong, pleaded guilty before the Judge of the Morristown District Court to a charge of practicing medicine without a license.

February 23, Albert R. Korhnack, an electroptherapist of Gloucester, paid the penalty for practicing medicine without a license.

February 23, Anna Fazekas, of Franklin, paid the penalty for practicing midwifery without a license.

March 4, Voorhees G. Cheatham, a licensed chiropractor, of Plainfield, was convicted of practicing medicine without a license; defendant exceeded his chiropractic license by giving electric treatments.

March 9, Abraham E. Sandman, an electrotherapist, of Atlantic City, pleaded guilty, before the Judge of the Atlantic City District Court to a charge of practicing medicine without a license.

March 9, John F. Johnson, of Atlantic City, was

found guilty of practicing medicine without a license, by the Judge of the Atlantic City District Court.

March 23, Frederick S. Fennel, a licensed chiropractor, of Morristown, paid the penalty for practicing medicine without a license; defendant exceeded his chiropractic license by giving electric treatments and drugs.

March 23, Mary Miller, a licensed chiropractor, of Paterson, was found guilty by the Judge of the Paterson District Court on a charge of practicing medicine without a license; exceeded her chiropractic license by giving electric treatments and drugs. On the same date, Nancy Kehoe, the nurse employed by Mary Miller, D.C., was also found guilty, by the Judge of the Paterson District Court, on a charge of practicing medicine without a license; gave electric treatments under the direction of Mary Miller, D.C.

March 30, Wilbur Leib, a druggist, of Cape May, pleaded guilty before the Judge of the Cape May County Court of Common Pleas, to a charge of practicing medicine without a license.

April 7, Beverly R. McPhail, a druggist, of Maywood, pleaded guilty before the Judge of the Englewood District Court to a charge of practicing medicine without a license.

NEW JERSEY SUPREME COURT HOLDS SWEET SPIRIT OF NITRE AND ESSENCE OF PEPPERMINT TO BE MEDICINES

(This report is from Dr. Robert P. Fischelis, Secretary of the New Jersey State Board of Pharmacy.)

On November 5, 1930, the Board of Pharmacy of the State of New Jersey brought suit against Chesley Hutchins, proprietor of a so-called patent medicine store in the city of Gloucester, New Jersey, for the sale of "Sweet Spirit of Nitre", manufactured by Smith, Kline and French Laboratories, Philadelphia, and "Essence of Peppermint", manufactured by the Fraser Tablet Co., Inc., Brooklyn, New York. The sales were made without supervision of a Registered Pharmacist and the Board produced expert testimony to show that the articles sold were medicines.

The District Court judge refused to direct a verdict for the Board, on the evidence presented, and allowed the case to go to the jury for a verdict. The jury declared the defendant Hutchins "Not Guilty".

The Board of Pharmacy immediately appealed to the Supreme Court for a review of the proceedings. On May 9, 1932, the Supreme Court reversed the judgment and ordered a new trial. In the decision of the Supreme Court it was stated: "The only question raised on this record is whether or not the judge should have directed a verdict for the State Board. It is claimed that he should have done so, because there was no dispute in the evidence that the employee sold the essence of peppermint and sweet spirits of nitre, and that they were medicines. The sole contention of the defendant was, and is, that these were not medicines and that there was testimony tending to show they were not medicines.

We think the only rational inference to be drawn from the evidence in this case was that these articles were medicines, and that required the direction of a verdict for the State Board. . . . Because of failure of the trial judge to direct a verdict in favor of the Board, on the undisputed evidence at

the trial, the judgment under review will be reversed, and a new trial awarded, costs to abide the event."

THE 1932 GRADUATE FORTNIGHT OF THE NEW YORK ACADEMY OF MEDICINE

Tumors, benign and malignant, will be the theme of the 1932 Graduate Fortnight of The New York Academy of Medicine. The medical profession of the country is invited to participate in the intensive 2 weeks' study of this important subject.

A full program of clinical demonstrations, lectures and conferences has been arranged to cover all phases of tumors, their diagnoses and treatment.

Concurrent with the Fortnight, and for an added week thereafter, there will be housed in the Academy building an exhibition of anatomic specimens numbering approximately 3000 units. A number of the sections in the exhibition will be subjected to lecture demonstrations at regular intervals.

Ten evening meetings have been arranged during which tumor growths in various parts of the human anatomy will be discussed. Among the speakers are: Drs. W. Gordon M. Byers, Edwin Beer, Charles A. Elsberg, James Ewing, Donald C. Balfour, Daniel F. Jones, Dean Lewis and Francis Carter Wood.

Afternoon clinical meetings and demonstrations (30) have been arranged in 18 of New York City's leading hospitals, including Bellevue, Lenox Hill, Presbyterian, St. Luke's, Fifth Avenue, Post-Graduate, and Neurological Institute.

The Fortnight will be held from October 17 to 28, inclusive.

The profession of the country is invited to attend and to participate. There is no charge for attendance at any of the clinics or meetings, but registration is required for participation in the hospital demonstration clinics.

A complete program and registration blank may be secured by addressing The New York Academy of Medicine, 2 East 103rd Street, New York City.

Woman's Auxiliary

A SIMPLE BUT IMPORTANT TASK FOR THE WOMAN'S AUXILIARY TO THE MEDICAL SOCIETY OF NEW JERSEY

Eradication of Hay-Fever Producing Weeds

(We have been asked many times—"What can we do?"—"What work is there for our County Society Auxiliary?" We have answered by suggesting something we thought worthy of consideration but—probably for perfectly good reasons—a few only of those suggested tasks have developed into noticeable results. In this issue of the Journal we are publishing an "original article" on the causes of hay-fever and it seems peculiarly appropriate to present in this section the report of helpful service rendered by a Texas County Society Auxiliary and, we believe, since adopted in a few other organizations in the South. Furthermore, this is the proper season for starting such work, to help hay-fever victims this year.

The following is copied from the Journal of the Texas State Medical Society.—Ed.)

EL PASO'S HISTORY OF WEED ERADICATION RELATIVE TO HAY-FEVER

Mrs. J. A. Rawlings,

Chairman of the Weed Eradication Committee of
the Woman's Auxiliary to the El Paso
County Medical Society,
El Paso, Texas

Russia, the most talked-of country today, has unconsciously succeeded in putting over on our country one of its worst pests—the "tumble weed"—which is the "Russian thistle". The story goes that in a shipment of grain from Russia was a new kind of seed; some of the grain was sown in New Jersey, and there appeared the Russian thistle which grew rapidly and, like a huge ball, has tumbled its way from the Atlantic to the Pacific. Hay-fever is everywhere prevalent as never before, due largely to this and many other weeds, plants, and grains, which give forth pollen.

Two medical experts, after a survey of El Paso, said that 80% of the hay-fever here could be prevented if *tumble weed* and *pig or careless weed* were eradicated, the former prevalent from May till frost, the latter from August to frost. Earlier in the season, the pollen from cottonwood trees causes trouble; also pollinating Bermuda grass. The *tumble weed* is our worst offender in the early summer. In appearance it is very attractive; no hard prickles when small; it starts with a tap root producing tiny pointed branches, the size of the lead in a pencil, and of a gray-green color that deepens with age. It branches irregularly, resembling the sprengenic fern; it grows to be a huge bush 3 to 5 feet high, becoming round and brown in the fall. The wind severs its tap root and it begins its tumbling journey, scattering thousands of seeds. It has been estimated that an average tumble weed matures 40,000 seeds. Think how much public health work you do when you pull one weed. Its mission is to produce pollen readily carried through the air, and, therefore, readily causing hay-fever. A disease so common, we think of it as we do a cold, but a most distressing disease producing real suffering; it causes a feeling of depression that makes life seem not worth the living. Hay-fever lessens resistance and depletes the system so that other diseases follow. Little children are among the greatest sufferers. An attack may begin early in the spring and last till frost. One often becomes totally unfit for work.

In 1924, the El Paso Herald advocated a weed eradication campaign. In March, 1927, Dr. George Turner talked before the Woman's Auxiliary to the El Paso County Medical Society on the cause of hay-fever and its menace to health. He stated that he had talked before every organization in town and had not yet succeeded in getting anything done. It was determined to do something. The newly installed President, working through her strong executive committee, appointed speakers to talk before all organizations of men and women possible, explaining the need for weed eradication, and the 89 members of the Woman's Auxiliary asked people in the homes to free their yards from weeds and to clean vacant property. The response was gratifying. The school children were asked to pull tumble weeds and rewards were offered. In 3 days 250,000 weeds had to be paid for and we were forced to pay our debts with public contributions.

Mr. H. D. Slater, Editor of the Herald, put on a fine publicity campaign, designating one of his best writers to the job. The result was excellent. In fact, the articles attracted the attention of our

President of the Woman's Auxiliary to the State Medical Society and she had her secretary send clippings to the various medical auxiliaries in Texas. We succeeded in getting the coöperation of the El Paso County Medical Society, the Chamber of Commerce, the Board of Health, the city schools, the railroads and the many organizations of the press. Representatives from the above organizations, together with those from 18 women's organizations were asked to meet with the City Council. Our Mayor, Mr. Thompson, saw the need for weed eradication and did all in his power. There was no budget.

The various departments coöperated. Dr. McCamant, for the El Paso County Medical Society, proposed an ordinance sponsored by Drs. Rawlings and Brown of the Board of Health, to fine property owners who did not clean lots. In 1929 another ordinance was passed taxing property, and that is now in force. There was a splendid spirit of coöperation and Dr. Outlaw, City Health Officer, put through a fine piece of work.

Favored by dry weather and cleaning of tumble weeds, there was very little hay-fever till August, when much rain brought forth the *careless* or *pig weed* in great profusion and there was much suffering. This weed has various names and come from Europe to Canada and the United States. In 1928, the City Council budgeted \$1200 for weed eradication. In April the Woman's Auxiliary asked coöperation of the City and Health Departments to put on a short educational campaign. The city property was pretty well cleaned in the early summer but the \$1200 did not last through the season. Those not afflicted with hay-fever did not see themselves as "their brother's keeper". In August the pig or careless weed became rampant and there was such a flood of hay-fever that there were thousands of cases; those who could, left town, some not to return. The following year (1929) the budget was increased by \$1000 and the city offered to clean property at \$1 per lot. Many sent checks; 5000 lots were cleaned. Real estate men and railroads coöperated.

This last year, 1930, the work was better organized with a Weed Eradication Department. The weather was dry and the combination was like preventive medicine. Few people got hay-fever. As usual, the rains brought forth the pig or careless weeds and they were cut. For the first time the city had the appearance of being cared for, though not half of the lots were free from weeds. Example has been a strong influence in homes. A lady said she was the first to clean her place of weeds; the next year 2 did likewise and now the whole block is beautifully kept. We are proud of the last year's report; over 10,000 lots were cleaned. It shows fine coöperation and work. To Dr. Outlaw great credit is due. The press has shown the finest spirit of helpfulness. Dr. Turner reports that since this work on weed eradication, not only are there fewer cases but they have been less severe and where asthma was frequent it is now rare. This year promises the most luxuriant crop of hay-fever weeds ever known, already many people are afflicted. The weed eradication department is doing fine work. Notices have been sent to nearly all vacant property owners and many checks received to pay city for cleaning lots. Many people are cleaning their own property. The city has 25 men working every day on city property and vacant lots. A big factor now is the pollinating Bermuda grass in the yards of residences, and a notice is being distributed by the Boy Scouts, reading:

"PERSONAL NOTICE WEED ERADICATION"

The Mayor of El Paso and the Board of Health, with the help of the Woman's Auxiliary to the El Paso County Medical Society, who for the past 5 years have stressed weed eradication and through the coöperation of the Boy Scouts of America, do hereby give notice, in accordance with an ordinance passed by The City Council on May 9, 1929, owners and occupants of real estate are required to eradicate and destroy hay-fever weeds, notably tumble, pig and careless weeds and to cut Bermuda grass often enough to prevent seeding. Good citizens do not have to be compelled to obey city ordinances. This notice is handed to you in the interest of several thousands of hay-fever sufferers in El Paso. The Health Department reports that 20% of our population suffers from hay-fever; not only adults, but children. One's efficiency is cut from 15% to 50%; sometimes totally. You can greatly aid in reducing this suffering by coöperating. If everyone occupying or owning property will attend to its need, the problem is solved. Prove your loyalty to El Paso and help make your city clean and healthful."

The Mesilla Agricultural College is now experimenting by spraying weeds. We tried burning but now our faith is in the man with the hoe, and the Fire Department burns the pile. The Woman's Auxiliary has a standing committee of 15 to assist in every way possible with this work. Recently a talk was given over the radio by a member. This is a big problem but much progress has been made, and this year promises greater coöperation.

Some citizens are making contributions to poppy seed. The Garden Club and Woman's Department of the Chamber of Commerce are planning to beautify the vacant lots. Just as a home, by its cleanliness and beauty reflects the character and ideals of those who live there, so a city by its cleanliness and beauty reflects the characteristics and ideals of its citizens. We hope in time to have the most beautiful and the cleanest city in the Southwest.

Gloucester County

Reported by Mrs. Henry B. Diverly

A meeting of the Woman's Auxiliary to the Gloucester County Medical Society was held Thursday, April 21, at Oakwood Country Club at 9 p. m. The President, Mrs. Elwood Downs, presided. The membership was well represented.

Mrs. William S. Shafer, of Camden, was a guest. After the business meeting, followed a social hour.

The County Society held its meeting at the same place and hour, and at the conclusion of their meeting, we were invited by their President to join the men in the dining room, where a fine collation was served.

ANNUAL MEETING

The Woman's Auxiliary to the Gloucester County Medical Society held its Annual Meeting at the home of Mrs. J. Harris Underwood, North Woodbury, on May 12, preceded by a luncheon, with the President, Mrs. Elwood Downs, presiding.

Members present were: Mrs. Elwood Downs, Woodbury; Mrs. Chester I. Ulmer, Gibbstown; Mrs. David R. Brewer, Woodbury; Mrs. William Crain, Mt. Ephraim; Mrs. Livengood, Swedesboro; Mrs. Fuller Sherman, Woodbury; Mrs. J. H. Underwood, Woodbury; Mrs. Duncan Campbell, Woodbury; Mrs. C. A. Bowersox, Woodbury; Mrs. Harry

Stout, Wenonah; Mrs. Wilson Stout, Wenonah; Mrs. W. W. Pedrick, Glassboro; Mrs. F. G. Wandell, Clayton; Mrs. Ralph K. Hollinshead, Westville; Mrs. Gardiner, Swedesboro; Mrs. A. B. Black, Mickleton; Mrs. Henry B. Diverty, Woodbury.

Election of officers resulted as follows: President, Mrs. Elwood E. Downs; Secretary, Mrs. Ralph Moore; Treasurer, Mrs. D. R. Brewer.

After adjournment, the ladies were invited by Dr. Underwood to make a tour through the Underwood Hospital.

Despite the rain, the ladies had a very profitable and enjoyable afternoon.

Hudson County

Reported by Mrs. James Murphy

The Reciprocity Meeting of the Woman's Auxiliary to the Hudson County Medical Society, to which representatives from all societies having a *health program* had been invited, was held on Monday afternoon, May 2, at the Y. W. C. A. There was a large attendance, and we were happy to have the State Auxiliary President, Mrs. H. Roy Van Ness, and the State Auxiliary President-Elect, Mrs. Charles Franklin Adams, with us.

Mrs. Van Ness gave a splendid talk, on the physician's willingness to serve his community. She also gave an explanation of the Primer—"The Relationship of the Physician to the Public"—and copies were given to all present.

Miss Norma Barnaba favored us with piano selections, and was most generous with her numbers.

A social hour followed, when a very attractive tea-table and dainty refreshments aided in promoting conversation.

After departure of our guests, a business meeting was held, Mrs. Culver presiding.

It was moved, seconded and carried that our Annual Play Day be held at the Shackamaxon Country Club, on Tuesday, May 24; luncheon at 12.30 p. m., with cards following.

The following Delegates and Alternates (to the State Convention in June) were appointed: Mrs. George M. Culver, Mrs. Henry Klaus, Mrs. E. G. Waters, Mrs. W. Eckert, Mrs. John Connell, and Mrs. Norman L. Rowe.

A letter was read from Dr. W. W. Brooke, President of the Hudson County Medical Society, in which he appointed Dr. Louis A. Pyle, Dr. Hugo Alexander and Dr. George M. Culver, as the Advisory Board for this County Society Auxiliary.

There being no further business, the meeting adjourned.

Passaic County

Reported by Mrs. Burt W. Botbyl

On Monday, May 16, the Past-Presidents and present officers of the Woman's Auxiliary to the Passaic County Medical Society entertained Mrs. Van Ness, State Auxiliary President, at luncheon in the Alexander Hamilton Hotel.

At 3 p. m. the Annual Meeting was held at the Woman's Club, with reports from the various committee chairmen, and a very inspiring talk on plans for future work, by Mrs. Van Ness.

The members present were well pleased when Mrs. Olav Berg presented her most interesting lecture on "Ten Famous Women of History".

Mrs. Phelps poured tea while dainty refreshments were served by the committee in charge.

Somerset County

Reported by Mrs. A. Levy

The regular meeting of the Woman's Auxiliary to the Somerset County Medical Society was held at the Nurses' Home of the Somerset Hospital, Thursday, April 14.

The Nominating Committee reported and, upon motion, the Secretary cast a unanimous ballot, electing the following officers to serve for the ensuing year: President, Mrs. Josiah Meigh, Bernardsville; First Vice-President, Mrs. A. L. Stillwell, Somerville; Second Vice-President, Mrs. J. Brittain, Bound Brook; Recording Secretary and Reporter, Mrs. A. Levy, Somerville; Corresponding Secretary, Mrs. G. Barbour, Somerville; Treasurer, Mrs. E. Flint, Raritan. The following Delegates and Alternates were elected to attend the Annual Meeting in Atlantic City on June 16: The President, Alternate, Mrs. Stillwell; Mrs. Renner, Alternate, Mrs. Cooper; Mrs. Ely, Alternate, Mrs. Hegeman.

We were honored at this meeting with the presence of our State Auxiliary President, Mrs. H. Roy Van Ness, who addressed us on "The Relation of the County to the State, and to the National Auxiliaries"; and the general aim and scope of the organization. She explained how, in different sections of the country, the work has varied according to the needs of the particular section.

Mrs. Van Ness complimented our group on its efforts in behalf of Hygeia, and the Society for the Relief of Widows and Orphans of Physicians. This Auxiliary has been striving this year to make the members of the Somerset County Medical Society 100% subscribers to both of these projects.

The business meeting was followed by a brief but wholly delightful social hour, during which Mrs. Benjamin Borow of Bound Brook sang several selections, accompanied at the piano by her father, who is one of New York's well known musicians.

This meeting was adjudged by all present as the most successful meeting this year.

County Society Reports

ATLANTIC COUNTY

John S. Irvin, M.D., Reporter

Members of the Atlantic County Medical Society were guests of Abbott's Dairies, Inc., at the Atlantic City plant, for their regular monthly meeting on May 13. After a tour of inspection, a dinner was served and greatly enjoyed. Members of the Atlantic City Drug Club were guests of the Abbott Company, at the dinner, and of the Atlantic County Medical Society, at the meeting; as were also Miss Nellie McGurran, Superintendent of the Atlantic City Hospital; Miss Elsie M. Casperson, Superintendent of Atlantic City Hospital School of Nursing, and Miss F. E. Goodenough and Miss K. de S. Corcoran, Instructresses of Nursing. There were 70 members and guests present.

The Secretary read an invitation to the Graduation Exercises of the Atlantic City Hospital School of Nursing, to be held May 20, at 8 p. m. in the Auditorium of the Atlantic City High School.

Dr. W. B. Stewart, of the Public Health Committee, reported that there was an exhibit on the Boardwalk below Arkansas Avenue, which he believed the Society should aid in having closed.

Upon proper motion, it was agreed that the Society would join other civic and fraternal organizations in asking the Mayor to stop the exhibit.

Dr. C. B. Kaighn, of the Board of Censors, moved that a vote of thanks be sent by the Secretary to the Abbott Company for the latter's hospitality.

He also reported that Drs. D. N. Rappaport, B. L. Gordon and Samuel Goldstein were approved for membership in the Society; and they were elected.

Dr. Davidson announced that the Society was allowed 7 Delegates to the State Society Convention, the following members now holding those offices: W. B. Stewart and W. E. Darnall, expiring in 1933; W. J. Olmstead and D. W. Scanlan, expiring in 1934; and E. H. Harvey, W. J. Carrington and S. Barbash, expiring in 1935.

As Dr. Olmstead has transferred his membership to another County Society, Dr. S. L. Salasin was appointed to fill that unexpired term.

Dr. Davidson also stated that the President of the Atlantic County Bar Association would like to have the Medical Society join in an "outing" sometime during the month of June. Drs. Gorson, Hyman and Wilson, of the Entertainment Committee, were instructed to meet with the Entertainment Committee of the Bar Association to arrange for this event.

The Scientific Program was presented by Drs. Edgar B. Friedenwald, of Baltimore, and V. Earl Johnson, of Atlantic City.

The first paper, presented by Dr. Johnson, was entitled: "Treatment of Varicose Veins". (Dr. Johnson informed the Editor that this paper differs but slightly from the one under the same title, published in our Journal of March 1931, page 229, to which our readers are referred.)

The next paper—"Feeding Problems of Mental Origin in Childhood"—was read by Dr. Edgar B. Friedenwald, of Baltimore, and will be offered to the Journal for later publication.

The paper was discussed at length by Drs. Charles E. North, of New York; Miller, Siegal, Salasin and Scanlan.

BERGEN COUNTY

Charles H. Littwin, M.D., Reporter

The regular May meeting of the Bergen County Medical Society was held on Tuesday afternoon, May 10, at the Bergen County Hospital, Bergen Pines. This is the yearly meeting at Bergen Pines and is known as the *Spring Festival*—and what a Festival!

The day started, right after 2 o'clock, with a baseball game between the East Side and the West Side (of the Hackensack River). "Spit-Ball Charlie" Littwin captained the East Side, and "Home-Run Willis" Demarest, the West Side. The East Side piled up 14 runs to the West Side's 8. Umpire "Eagle-Eyed Harrison" Wilson, therefore, presented the trophy to Captain Littwin. The trophy consisted of a beautiful *silver-cup* made of *tin* by the *plumber*.

Other entertainment was provided by such experts as E. N. Huff, of Englewood, with the *horse shoes*; and H. S. Garret, Joe Morrow, Chester King and Charlie Littwin showed the crowd *how to break clay pigeons*.

Dr. Morrow led the inspection of the Institution—consisting of the new County Laboratory, the new building for Mixed Contagion, X-Ray Department, Physiotherapy Department, and the Preventorium. As each Department was inspected,

Dr. Morrow gave a brief explanation. And, inspection was followed by a Dinner—and how!

The regular Business Meeting was held immediately after dinner. Addresses followed by Dr. Samuel Alexander, in behalf of the Board of Managers, and by Dr. Morrow, who enlarged on the work of the institution. He brought out a fact, which it is believed most of the physicians of Bergen County do not quite understand; i.e., it has been generally believed that when a patient was sent to Bergen Pines, that said patient was then entirely out of the hands of the remitting physician, but Dr. Morrow announced that "once a patient, always a patient" is the policy of Bergen Pines, and he welcomes the patient's own physician to the Institution, and invites suggestions or criticisms of treatment.

About 75 members of the Society were present, and the other members can well be jealous of the good time, as well as the instructive part, of this Spring Meeting.

BURLINGTON COUNTY

Roscius I. Downs, M.D., Reporter

The regular meeting of the Burlington County Medical Society was held at the Burlington County Hospital, at Mount Holly, Wednesday afternoon, May 11, with Dr. Curtiss presiding over the 14 members present.

A letter from the Editor of the Ladies' Home Journal was read, asking the society to pass resolutions to the effect that it regards maternal mortality due to childbed fever as being definitely preventable, and that in the interest of public health, it urges prospective mothers to seek required medical care from able physicians only. Thus 38 of 100 maternal deaths that now occur in childbirth can be prevented, as Paul de Kruif has re-affirmed to American mothers in an article entitled—"Saver of Mothers"—to be published in the March issue of the Ladies Home Journal. He wished to utilize those resolutions for publication.

The impression made upon our members was far from pleasing; some of them feeling that the communication was an insult to the profession. It was voted to send a letter declining to further consider such action.

Dr. Joseph C. Bloodgood, of Baltimore, forwarded to the society a summary of his address before the French League Against Cancer, in Paris. This reprint briefly informs every adult what she or he ought to know about the prevention of cancer. He wished this material to be presented to the County Medical Society for discussion, and then given to the local press, for publication under authority of the medical society, omitting his name. Dr. Bloodgood is especially anxious to bring to mothers, as well as to the medical profession, the protective value of the *semi-annual pelvic examination*. This subject was referred to the Publication Committee for consideration.

Dr. Conroy, reporting for the Committee on Venereal Clinics for the River-Front Towns, said that the most convenient place would be at the new Zurbrugg Memorial Hospital, at Riverside, when it opens. The State Health Department would furnish the drugs for 1 year and Dr. Viteri would be glad to supervise the clinic.

The following Scientific Program was arranged by Dr. Fahrenbruch: "Present Status of Female Sex Hormone Therapy", by Dr. J. C. Hirst, of Philadelphia.

"Diagnosis and Treatment of Hereditary Syphilis", by Dr. P. B. Reisinger, of Roebbing, New Jersey, and "The Importance of Proper Maternity Care", by Dr. F. D. Fahrenbruch, of Mount Holly, New Jersey.

These 3 papers are all intensely interesting and of educational value, and will be forwarded for later publication in the Journal.

CAMDEN COUNTY

R. L. Sharp, M.D., Reporter

The May meeting of the Camden County Medical Society was held May 3 in the Camden City Dispensary Building, with Dr. E. G. Hummel presiding and 50 members in attendance.

Drs. B. Wroblewski, of Camden, and Stanley L. Brown, of Laurel Springs, applied for membership.

The following physicians were elected Active Members: Drs. Kenneth B. MacAlpine, of Gloucester; Edgar A. Farrell, West Haddonfield; M. Frederic Ondoychak, Camden; Charles Kutner, Camden; and A. M. K. Maldeis, Camden.

The Committee of Arrangements for the Annual Outing announced that the event would be held May 26 at the Tavistock Country Club. The County Society will have its outing in conjunction with the West Jersey Homeopathic Society and the Physicians' Motor Club of Camden County.

Our own members presented the scientific program. Dr. Vincent Del Duca gave an interesting case report with necropsy findings, the subject being "Chronic Subdural Hematoma in an Infant". His report was discussed by Drs. E. G. Hummel and Hyman I. Goldstein.

Second paper was by Dr. David F. Bentley, Jr., on "Hematuria". The importance of early diagnosis, especially the differential diagnosis, was stressed, and treatment of kidney and bladder disease in general was discussed. The paper was illustrated with lantern slides. Drs. Lippincott, Goldstein and Bentley discussed the essay.

"Heredo-familial Angiomatosis with Recurring Familial Hemorrhages" was the subject of a paper by Dr. Hyman I. Goldstein, who has worked a great deal on this subject and has published several papers. The diagnosis and differential diagnosis of this rare malady was clearly presented and illustrated with lantern slides. Discussion was opened by Dr. Mengel.

The following resolution, upon the passing of Dr. Bradsley, was read:

"Whereas, Chester A. Bradsley, M.D., a member in good standing of the Camden County Medical Society, has been removed from our midst by an act of Divine Providence.

Be it resolved, that the medical profession has lost a physician, always diligent and faithful in the performance of his duties; and

Be it resolved, that the community has lost an upright citizen and friend to all who knew him; and

Be it resolved, that we extend our deepest sympathy to his wife and family in their great loss, and that a copy of these resolutions be placed upon our minutes and a copy be sent to his family.

(Signed) B. Franklin Buzby
A. Haines Lippincott
E. G. Hummel"

CAPE MAY COUNTY

Eugene Way, M.D., Reporter

The semi-annual meeting of the Cape May County Medical Society was held at the Club House of the Ocean City Golf Club on Thursday, April 28. The meeting was preceded by an exciting Golf Tournament of 4 hours' duration between the "picked" teams of the Atlantic and Cape May County Medical Societies. Cape May County led until the last minute of play, when a beautiful shot by an Atlantic County player turned threatened defeat into victory, and Cape May lost by a score of 6 to 7.

The following members were present: President Corson, Crowe, Dandois, Way, Townsend, Darby-Smith, Brooks, Cryder, Tomlin, Hughes, Pettitt, Whitaeer and Freil. The visitors were: Drs. Wells, Kirby, Diverty, Hollinshed, Campbell, Van Deusen, Darnall, Conaway, Walter B. Stewart, W. Blair Stewart, Wilson; Mrs. Corson, Mrs. Dandois, Mrs. Townsend, Mrs. Smith, Mrs. Brooks, Mrs. Tomlin, Mrs. Pettitt, Mrs. Diverty, Mrs. Hollinshed, Mrs. Hughes, Mrs. Wilson.

The meeting was called to order by President Corson, who introduced Professor G. Harlan Wells, M.D., of Hahnemann Medical College, who gave an illustrated lecture on "Cardiac Pain", which was highly educational, instructive and entertaining.

Dr. Wells was voted the thanks of the society.

The paper was discussed by Drs. Kirby, Darnall, Stewart, Corson and others.

The place of next meeting was left to the choice of the President.

ESSEX COUNTY

Homeopathic Hospital of Essex County

Edward H. Willan, M.D., and Ferdinand C. Dinge, M.D., Reporters

The regular monthly, clinical, Staff Meeting of the Homeopathic Hospital was held at the Baker House, Thursday evening, April 28, with Dr. Willan presiding and 37 members present. The material presented served to demonstrate some of the less common methods of treating certain conditions; such as the Michulicz drain for general peritonitis following acute ruptured appendicitis, the giving of spinal anesthesia for paralytic ileus, and the closed method of draining empyema.

The meeting was opened by presentation of a series of interesting x-ray films, Dr. W. James Marquis demonstrating pictures of the cervical spine, stressing the difficulty in diagnosing traumatism, infection, or neoplasm in this region. He stated that normal variations in the bodies and spinous and lateral processes are many and that radiologists are rarely afforded the opportunity of seeing normal variations because the clinician usually orders cervical radiographs only for a pathologic condition. The radiographs then shown to demonstrate the difficulty were of a patient who, shortly after a resection for carcinoma of the colon, developed pain in the neck, before death, and the pictures were entirely negative although there was a large mass in the soft tissues of the neck; and at autopsy, bodies of the cervical vertebrae were extensively eroded and metastasis had evidently spread by continuity.

Case 1. Dr. A. A. Rubin reported a case of "Acute Gangrenous Appendicitis with Generalized Peritonitis". The patient was an adult male, aged 33, who had been sick 2 days with pain in the epigastrium and history of having vomited 3 or 4 times. The pain traveled to the umbilicus and, on admission, there was definite right lower abdominal pain with tenderness and rigidity. Upon operation, generalized peritonitis was encountered. The appendix stump was tied in the usual manner and 3 Penrose drains used. About the third day paralytic ileus developed. Consultation was secured and ileostomy and transfusion recommended. Immediately after spinal injection a large amount of flatus and fecal material was expelled and the abdomen became flat. An ileostomy was done. Distension again became marked after a few days, but was again relieved by spinal anesthesia, and patient then made an uneventful recovery.

The patient was presented to call attention to a method of combatting paralytic ileus caused by other than organic obstruction, viz. spinal anesthesia. Dr. Allen explained the action as one of relaxing the sphincter and producing peristalsis.

Case 2. Dr. F. C. Dingee reported a case similar to Dr. Rubin's in symptomatology and pathology: acute gangrenous appendicitis with peritonitis. Instead of the usual Penrose tube drains, a modified Michulicz method was used. In this method, a 15 in. sq. of rubber sheeting, with $\frac{1}{2}$ in. diamond-shaped perforations, is flattened over as wide a peritoneal surface as possible, with edge of the sheet on the abdomen; this is then packed with 5 to 10 yards of 4 in. packing and wound is left open so that after the second day a small amount of packing can be removed each day; on the fifth day all packing is removed and the wound approximated with adhesive straps. This patient convalesced without symptoms or distention, temperature dropping by lysis and reaching normal in 2 days.

This presentation was designed to bring out another method which has been used successfully in a New York hospital and has now been twice used successfully by Dr. Willan.

Dr. Bunn raised the objection that this method had been discarded by him 25 years ago. The Michulicz procedure at that time consisted in putting directly against the peritoneum a large amount of packing, which proved to be more of an irritant than rubber dam. Secondly, about 20% developed ventral hernias. Another objection was that a large bulky drain, besides irritating the peritoneum, increased the incidence of shock.

Dr. Dingee admitted that his 2 cases, and 8 to 10 by men in a New York hospital are not sufficient to warrant making a general statement as to efficiency of the procedure but he thought it should not be severely criticized or condemned until given a fair trial.

Case 3. Dr. Sara D. Smalley, presented an adult female, aged 31, who had an "Acute Intestinal Obstruction". In May 1918, she was operated upon for acute appendicitis, and made an uneventful recovery; but 3 weeks later became partially obstructed, with severe abdominal pains, vomiting and distention, and was again opened and a knuckle of ileum was found adherent to the appendix stump. After 9 years of feeling well she had periods during which she was partially obstructed but could usually relieve herself. She had considerable trouble during a

pregnancy which terminated in December 1931. In April 1932, she became acutely obstructed and vomited intermittently for 4 days. On day of admission she was extremely ill, both fecal and gas-obstructed; subnormal temperature, cold clammy, distended, retching and vomiting fecal material. She had a distinct acetone breath odor and was dehydrated. The stomach was lavaged and intravenous of 1000 c.c. glucose and saline was given before operation. On opening the abdomen, the omentum was found firmly adherent to the old appendicular scar. The small bowel was purplish in color throughout its extent and markedly distended. About 4 feet from the ileocecal valve there was a fibrous band measuring 6 cm. in diameter which stretched from the ileocecal junction, across a large part of intestines, to this area. This band was under considerable tension but cutting resulted in an improvement in color of the intestine. However, the damaged lumen at point of pressure was reduced to less than 1 cm. in diameter. A lateral anastomosis had to be made, to insure proper passage and an uneventful recovery.

Case 4. Dr. H. Cherashore presented a boy, aged 17 years, who entered the hospital March 21 with empyema. X-rays showed a homogeneous density extending over most of left side. Aspiration confirmed diagnosis of empyema. Temperature was running to 103.5°. Leukocytosis was 19,700; neutrophils 72%; culture showed streptococcus, beta type; operation was performed. Because the condition was seen early and no fixation of the mediastinum was evident, it was deemed wise to make a closed drainage of the empyema cavity. Trocar and canula were inserted into the seventh interspace and a large catheter was introduced into the opening thus made in such manner that no air could escape beside the tube. Postoperatively, a certain amount of pus was withdrawn each day and replaced with Dakin's solution. Patient was out of bed in a wheel chair on the sixth, and discharged on the tenth postoperative day. Has gained considerable weight and at present has only a small amount of very thin drainage from the cavity.

Dr. Rubin, in discussion, said closed drainage has a definite place in the treatment of empyema, because of its many advantages: It is a simple procedure and can be easily accomplished without shock to a sick patient; does not quickly empty a large pus cavity, thus starting certain phases of pressure change; in the early cases, before fixation of the mediastinum, it might also prevent lung collapse; there is not the danger of osteomyelitis which is present with rib resection; nor the danger of hemorrhage from erosion of the intercostal vessels. Dr. Rubin stressed the point that the drainage tube should not be removed until the very last bit of cavity is obliterated. When the solution injected oozes back along the tubes, showing no cavity remains, the tube may be safely removed.

Case 5. Dr. Willan reported on a man, aged 24, who entered the hospital December 14 with a diagnosis of "Bronchial Pneumonia". Temperature of 103°, ran as typical of pneumonia for 5 days, when his white blood cells were 16,200, with neutrophils 83%, and an x-ray examination disclosed definite evidence of fluid in the right lower chest. Aspiration in the eighth interspace showed that the pleural cavity contained a thick, yellow-green pus. The patient was taken to the operating room and a costectomy performed under local anesthesia, on December 25. About

300 c.c. thick pus was evacuated and the cavity was drained with a large tube fenestrated at the inner end. Postoperative irrigation with Dakin's solution and 22 days after operation he returned home with a small sinus still draining a little pus. This cleared up at home within 10 days; he rapidly gained weight and strength and at present is entirely well.

These 2 patients were reported to bring out differences in the treatment of pleural empyema. Dr. Willan discussed various procedures used from time to time to accomplish so-called closed drainage of empyema cavities, such as the empyema buttons, the Soresi apparatus, and drainage under water seal, all of which have been practically abandoned. He did think that the closed method of drainage, in which a tube is placed in the interspace after simple puncture with a trocar and canula, has a distinct value in certain early cases where the patient must be relieved of pressure; the operation is less shocking than a costectomy and it might serve to put the patient in better condition for a later rib resection. The statistics seem to show that about 50% of patients so drained will get well without further manipulation. The other 50% may eventually need rib resection. Since this procedure can be done with little shock, and gives the patient relief, it is a valuable measure; and is more valuable in so much that in 50% of cases the patient may never need rib resection.

Dr. Fendrick gave a demonstration of interesting pathologic slides showing a squamous-celled carcinoma from a young colored woman aged 36, and a second series of slides from a case of Hodgkin's disease. Dr. Fendrick pointed out the large Reed cells; the marked fibrosis; and endothelial cells; which are the 3 main characteristics of Hodgkin's disease, and stated that eosinophilia is also a frequent accompaniment of this triad but that it was not necessary to the diagnosis. A third series of slides were of an adenocarcinoma which had been operated upon, by removal of a portion of the large bowel, 8 months previously. There was a recurrence of this growth in the mesentery of the colon, in the liver, on the rectal shelf, in the lung and in the cervical spine. The sections showed typical glandular neoplasm with cells in immature gland formation and bursting through the stroma. Numerous mitotic figures were present. The last slide was from a case of adenocarcinoma of the uterine fundus. Dr. John Gray led a discussion of carcinoma of the uterus, and pointed out the extreme importance of being able to make a definite diagnosis from even small bits of tissue obtained by curetting. He said that the surgeon and the family wish a definite diagnosis and that this diagnosis may be difficult to make. Often times the sections show only half the picture, the depth of the invasion of certain cells may not be shown because of the fragmentary character of the tissue submitted. There are other sections which may show irregular glands but at that same time the epithelial lining of these glands may not penetrate the basement membrane. He felt that at times one must make a diagnosis almost on the type of cell itself. This is a work which has been carried on by Dr. MacCarty of the Mayo clinic and some feel that he has gone too far and that the diagnosis of carcinoma should only be made when there is invasion of the stroma. Dr. Gray told of 4 curettings which had reached his laboratory within the last few weeks. They were all border-line cases. After a care-

ful study he made a diagnosis of malignancy in each case and then was criticised because it was thought by others that 1 of these might be only a papillary growth, and another a hyperplastic condition. He then took the slides down to Bloodgood's laboratory in Baltimore, and after complete study they were all reported upon as *malignant*. This diagnosis was also confirmed by a prominent pathologist in New York. These men feel that the diagnosis rests on cell changes, and the age of the patient, and the clinical course must not confuse the pathologist or change his opinion. In certain doubtful cases one might be tempted to give a diagnosis of *adenomatous changes possibly malignant*, but in these cases the best diagnosis would be either Grade 1 cancer or, if there are not enough changes to give such diagnosis, the diagnosis of *precancerous condition* might be submitted. Dr. Gray said that a certain amount of piling up of the columnar cells might be due to just a hyperplastic condition with no malignancy, but if there is enough piling up, whether the basement membrane is intact or not, the diagnosis of cancer could be given.

Babies' Hospital Coit Memorial

E. Le Roy Wood, M.D., Reporter

The Staff of the Babies' Hospital Coit Memorial held its annual dinner Wednesday evening, April 27, at the Newark Athletic Club. Dr. Elmer G. Wherry, Medical Director, who was toastmaster, spoke of the harmony which existed between the Board of Managers and the Medical Staff and declared it most necessary for the proper existence of a hospital. He told the staff that their organization had learned a lesson from the disastrous experience of the Hospital and Home for Crippled Children, where the physicians were not adequately represented on the Board of Directors nor were they consulted about medical problems. Dr. Wherry said that when Mr. Charles Farrell had recently been made President of the Board of Directors of the Babies' Hospital Coit Memorial, he promptly sought a closer relationship with the physicians and appointed one of them to fill a vacancy on the Board caused by the death of a lay member. The whole medical profession should recognize the necessity of increasing their representation on the governing boards of their hospital. Their assistance will be welcomed and valued by lay directors who really hold the welfare of their institutions paramount.

Addressing the guests, Dr. John F. Hagerty, President of the New Jersey State Medical Society, outlined the history and work of the society he so ably heads. He, too, emphasized the necessity for harmony between the Board of Managers and the Medical Staff of any hospital, and declared it essential to successful hospital operation. He also reminded them that: "No matter how large a hospital or elaborate its equipment, the essential element of a good institution is the skill with which its doctors and nurses make use of it." The warm reception of his talk evidenced the affection all felt for him.

Dr. Edward W. Sprague, Chief Surgeon and new member of the Board of Directors, spoke of the history of the hospital and paid tribute to the memory of the late Dr. Henry L. Coit, its Founder.

Dr. Henry C. Barkhorn, Ex-President of the Essex County Medical Society, encouraged and inspired his fellows.

Dr. William O'G. Quimby, otologist, spoke about this happy association with the hospital and of his departmental work.

Other speakers were Dr. Edgar Holden, Jr., Dr. Chester R. Brown and Dr. Harry H. Satchwell.

The committee included Dr. N. A. Antonius, Chairman; Dr. E. A. Minard, Dr. J. Irving Fort and Dr. Paul H. Hosp.

Associated Physicians of Montclair and Vicinity

Cyril S. Kirkby, M.D., Secretary

The annual Dental Meeting of the Associated Physicians of Montclair and Vicinity was held on Friday evening, March 25, at the Elks Club, Montclair, with 75 doctors and dentists present, and Dr. Allan S. Kirkwood, of Montclair, presiding.

The speaker for the evening was Martin Dewey, M.D., D.D.S., F.A.C.D., President of the American Dental Association, who read a very instructive paper on "Orthodontia in Relation to the Nose and Throat", illustrated by lantern slides. He reviewed briefly the embryologic development of the nasal cavity, and demonstrated that unless the maxilla develops properly there will be deformity of the nasal cavity as well as of the face. If the maxilla does not undergo proper downward growth, the nasal cavity remains shallow and the nasal septum, which continues to grow, becomes deviated; and such conditions naturally obstruct the air passages and the person becomes a mouth breather. Removal of tonsils and adenoids if present will help those patients, but will not cure the condition; but if such patients have their teeth regulated, the maxilla will be stimulated into normal downward growth and the arch will become broadened. The end-results are an enlarged nasal cavity and a straightening of the nasal septum.

An apparently over-developed mandible is often due to a poorly developed maxilla.

Discussion of the paper was opened by Dr. Robert E. Buckley, Chief of the Nose and Throat Clinic, Manhattan Eye & Ear Hospital, New York City, who said that the gothic type of arch of the palate is due to under-development of the maxilla and the proper method of treatment belongs to orthodontia.

Dr. Dewey closed the discussion by answering questions.

As to the age limit, for corrective treatment, he said it was not known. Brilliant results have been obtained in patients as old as 25 years. It is more a matter of the patient's general condition than of age. The effect on the teeth depends on the amount of transposition the tooth has to undergo. The function of the Orthodontist, however, is to correct the deformity of the jaw, not to move the teeth.

Refreshment were served after the meeting.

GLOUCESTER COUNTY

Henry B. Diverty, M.D., Reporter

Members of the Gloucester County Medical Society were hosts to members of the profession who were former residents of the county, at a dinner-meeting held May 19 at the Oakwood Country Club.

Dr. E. E. Downs presided at Toastmaster and called upon each of the guests, who was to be presented to the society by a friend.

Among those honored were: Drs. David Brewer,

O. R. Kline, Charles Brennan, W. H. Haines, Stokes, Wolforth, Strittmatter, Dillon, Laws and Swartz.

A humorous address by J. L. Palmer was a part of the program which was greatly enjoyed.

The society voted to oppose reduction in size or quality of the Journal, and any other measure that would interfere with the efficiency or activities of the Editor.

Dr. Thomas Gardiner was elected as a member.

Members present were: Drs. Edward R. Ristine, Westville; J. H. Underwood, Dorothy Rogers, Duncan Campbell, E. E. Downs, Ralph Moore, H. B. Diverty, Crain, C. A. Bowersox and Fuller Sherman of Woodbury; E. Z. Hillegass, Mantua; W. J. Burkett, W. P. Chalfant and I. W. Knight, Pitman; B. A. Livengood, Swedesboro; I. I. Ulmer, Gibbstown; Horace M. Fooder, Williamstown; Wilson Stout and Don Weams, Wenonah; S. F. Ashcraft, Mullica Hill; Oran A. Wood and C. C. Sheets, Paulsboro; Ralph Hollinshed, Westville; Charles Pedrick and William Pedrick, Glassboro; F. G. Wandell, Clayton, and Victor I. Barrows, Pitman.

HUDSON COUNTY

Harry J. Perlberg, M.D., Secretary

The Regular Meeting of the Hudson County Medical Society was held at the Carteret Club, Jersey City, on Tuesday, May 3, with Dr. William W. Brooke, the President, presiding. The minutes of the April meeting, as printed in the Bulletin, were read and corrected, as follows: Regarding Delegates, the following men were *elected*, and *not nominated*, as printed in the Bulletin: Drs. Stockfish, B. T. D. Schwarz, Chapman and Williamson. Also, Dr. C. B. *Kelley's* name appeared, as an Alternate, where it should have been Dr. E. M. *Kiely*. The word *in*, appearing in Dr. Jaffe's amendment to the By-Laws, should have been emphasized by being underlined (*in*). The minutes were then accepted with the corrections.

The following report of the Committee on By-Laws was read by its Chairman:

Dr. Arthur P. Hasking. "This committee has received 4 proposals to amend the Constitution and By-Laws of this (County) Society and upon such we wish to report as follows: The first amendment, as proposed by Dr. Jaffe, was:

"Whereas, Any member who affiliates himself or herself with any clinic or dispensary not actually *in* an established and recognized hospital, unless such clinic or dispensary has been approved by this Society, shall be liable to censure, suspension or expulsion."

With reference to this, and to the next following amendment, the Committee was authorized to secure the opinion of Mr. Wall, Counsel to the State Society. The question asked Mr. Wall was: "Does a proposed amendment to the following By-Law as set forth violate any constitutional or legal right of the members of the Society?"

Mr. Wall: "In answer to your first question, in my opinion there is no property right of a member of the society involved in the proposed By-Law. It comes directly within the purposes of the Society as set forth in Section 2 of the certificate of incorporation. The purpose is undoubtedly to educate the public in preventive medicine and hygiene, and generally to increase the efficiency of the profession in its service to humanity."

Dr. Hasking: It was suggested further, by Mr. Wall, verbally, that a preamble or explanatory paragraph should precede the By-Law proposed;

and further suggested that the present paragraph of the By-Law be divided for self-evident reasons. We submit, therefore, the following, as an amendment to the By-Laws, to provide for the change proposed by Dr. Jaffe:

"Whereas, the establishment of clinics without due regard to necessary community need of medical services leads to confusion and prevents the highest usefulness of clinics, therefore, any member who affiliates himself or herself with any clinic or dispensary not actually operating in an established and recognized hospital, unless such clinic or dispensary has been approved by this Society, shall be liable to censure, suspension or expulsion."

To effect the orderly arrangement of the By-Laws to receive this new one, the Committee recommends that Chapter I Section 6, of the By-Laws, be changed as follows: "The first paragraph of Section 6 (a) to remain Section 6 (a); the second paragraph of this Section, beginning with the word *non-payment* and ending with the word *assessment* to become Section 6 (b); that the present Section 6 (b) shall be divided so that Section 6 (c) will read—"A member who is guilty of a criminal offense or gross misconduct, either as a physician or citizen, shall be liable to censure, suspension or expulsion; Section 6 (d) to read—the establishment of clinics without due regard to necessary community needs of medical services leads to confusion and prevents the highest usefulness of clinics, therefore, any member who affiliates himself or herself with any clinic or dispensary not actually operating in an established and recognized hospital, unless such clinic or dispensary has been approved by the Society, shall be liable to censure, suspension or expulsion; that the paragraph of the present 6 (b), beginning with the word *charges* and ending with the words *filing of the charges* shall become Section 7 (a) and the paragraph following, beginning with the words *Board of Censors* and ending with the words *Executive Committee* be designated as Section 7 (b); that the next paragraph, beginning with the word *suspension* and ending with the word *charges* be designated as Section 7 (c); that the next paragraph become Section 8 (a) and that the following paragraph, now marked 6 (c) shall become Section 8 (b).

The second proposed amendment to the Constitution and By-Laws proposed by Dr. Weiss, is as follows:

"Whereas, the Hudson County Medical Society has grown to over 400 members in the last few years, and

Whereas, the Constitution and By-Laws were drafted as of a previous smaller membership and provided for a Board of Trustees of 5 members, it appears desirable to increase the number of Trustees so that a greater representation of the members at large may be had:

Be it resolved that a suitable amendment be drafted by the Committee on Constitution and By-Laws to provide that at least 4 more members be elected by the Society to the Board of Trustees."

The following question was asked Mr. Wall—"Can Section 4 of Article V of the Constitution, which is to the effect that the Board of Trustees shall be 5 members, be changed or amended without a change of Section 5 of the Certificate of Incorporation which provides that the Board of Trustees shall be 5?"

Mr. Wall: "The Constitution is of course subject to the Certificate of Incorporation, and if it be desired to change the Constitution in any par-

ticular where it conflicts with the certificate of incorporation, it would be necessary to amend the latter and then amend the Constitution in conformity therewith."

Dr. Hasking: Supplementing this opinion, the Committee would like to state that, in effect, to amend the Certificate of Incorporation would be the same as to re-incorporate, with all the necessary legal procedures and expense. The real purpose of the Trustees is to hold for the Society title to real estate owned by the Society. At the present time the Society owns no real estate. Therefore, the only function of the Trustees at present is as members of the Executive Committee. The purpose of the proposed amendment is evidently to increase the membership of the Executive Committee. If that is the desire of the Society, we believe the increase should be made in other ways than by the procedure proposed. It seems proper for us, now, to remind the Society that at the last general revision of the Constitution and By-Laws, 2 years ago, it was the sense of the Society that the then-existing *Executive Committee was too large and unwieldy*, and it recommended to this Committee, in drafting the new Constitution and By-Laws, that the Executive Committee *be reduced in number*; and the present structure is, therefore, the result of an expressed wish of the Society. As is stated by Mr. Wall, nothing can be done at present to amend the Constitution until after the articles of incorporation have been changed. *Therefore, the Committee has no amendment to offer until that shall have been done.*

The third proposed amendment, by Dr. B. T. D. Schwarz, was: "There shall be 2 classes of membership in the Hudson County Medical Society, *Regular and Associate*. An *Associate member* shall have all the rights of a *Regular member* except the right to vote and hold office. All new applicants for *Regular membership* in the Hudson County Medical Society shall first qualify by a probationary *Associate membership* of 2 years' duration. At the termination of this time they shall apply for *Regular membership*. Dues of an *Associate member* shall be \$5 per annum."

This committee suggests that the term *Regular* be changed to *Active*, and to effect this we suggest that Chapter I—Section 1, as it now exists, be designated as 1 (a), and that a new sub-section designated as 1 (b) shall be attached, as follows: "The membership of the Hudson County Medical Society shall be classed as follows: *Active membership and Associate membership*. *Active members* shall consist of the present membership and those subsequently elected to *Active membership* from that of *Associate members*, and those who shall be received by transfer from another component Medical Society of the state or from the Medical Society of any other state. *Associate members* shall have all the requirements of eligibility required for *Active members*. They shall have all the rights and privileges of *Active members* except the right to vote and hold office and to acquire membership in the Medical Society of the State of New Jersey. The *Associate members* shall be subject to the Constitution and By-Laws and to the same rules and regulations of this Society applying to *Active members*. Each new applicant for *Active membership* in the Hudson County Medical Society shall first qualify by a probationary *Associate membership* of 2 years. At the termination of this period he shall apply for *Active membership*. Failure to do so within 6 months shall terminate his membership in the Society. The dues of an *Associate member* shall be \$5 per annum."

This Committee feels that from the foregoing there is no reason for amending Section 5 (a) of Chapter I of the By-Laws, as, in our opinion, it does not conflict with the present structure of said Section.

The fourth proposal to amend the By-Laws was to provide for an advisory counsel to the Executive Committee to be composed of the Past-Presidents. We submit the following By-Law to provide for this:

"That Section 2—Chapter IV, of the By-Laws be changed as follows: The first paragraph of the present section to be designated as Section 2 (a). That the following paragraph be designated as Section 2 (b) and that the new Section 2 (c) shall be as follows:

The Executive Committee shall have the power of requesting attendance of the Past-Presidents, at its meetings, to confer with them in an advisory capacity."

From the Bulletin, it appears that only the 5 most recent Past-Presidents were considered, but our information was as his been presented; however, if otherwise desired, the word *five* could be inserted before the words *past-presidents*. This Committee feels, however, that the Executive Committee should not be limited in the number of Past-Presidents they desire to have in conference.

This, is the unanimous report of the Committee on Constitution and By-Laws, composed of Drs. Barbarito, Quigley, and Hasking, as Chairman, and it is respectfully submitted to the Society as our Committee Report on the proposed amendments to the Constitution and By-Laws.

Dr. B. T. D. Schwarz stated, in reference to the amendment he proposed at the last regular meeting, that he wished to make clear the idea that men transferring from another County Society to this, were *not* to be taken in as *Active* members, but must first be *Associate* members; for the reason that the Society wished to know thoroughly the character of the men elected to Active membership.

The Board of Censors reported favorably upon the following applicants: Drs. Herman B. Kaplan, Ralph J. Doran, W. Fred Lucas, A. J. Watman and John J. O'Shea.

The following new applications were received and referred to the Board of Censors: Drs. Benj. B. Santosky, 162 Bergen Avenue, Jersey City; Irving Schwarzwald, 633 Palisade Avenue, West New York; W. H. Branch, 190 Duncan Avenue, Jersey City; William A. Draesel, 246 New York Avenue, Union City; and Robert Stewart, Secaucus.

The following named applicants, having been favorably reported by the Board of Censors, were, upon motion, elected to membership: Drs. Herman B. Kaplan, Ralph J. Doran, W. Fred Lucas, A. J. Watman and John J. O'Shea.

Dr. Harry J. Perlberg, having served as Secretary to the Hudson County Medical Society for 7 consecutive years, withdrew his name as a nominee for the office of Secretary. The following nominations were then presented from the floor: Dr. B. T. D. Schwarz, for Secretary; Dr. Edwin G. Waters, for Secretary; Dr. Charles Sirken, for Reporter.

Dr. Waters withdrew his name as a nominee for the office of Reporter, which had been submitted by the Nominating Committee in March.

Dr. Henry O. Reik, Executive Secretary of the New Jersey State Medical Society and Editor of the State Society's Journal, who was making an official visit, made a brief address. He spoke about progress of the State Society, in its various activities. Also, he commented especially upon the

great amount of work done by the Field Secretary, Mrs. Taneyhill.

Dr. Reik stated that he was much interested in the new type of Publicity Campaign recently started by our County Society, but he cautioned the Committee in charge to be particularly careful about material given to the news-papers for publication, so there might be no question afterward concerning *the accuracy of any statements*. He also spoke of the program for the Annual Meeting in June, which promises to be most interesting, and includes topics to be presented by various special Sections, among which is a new Section on Radiology. He commented on the plans set up by Dr. Waters concerning the supervision of specialists, and expressed the hope they may be adopted at the Annual Meeting. He concluded by congratulating the Hudson County Medical Society on achievements during the past year, and, regretting any necessity for the action taken by Dr. Perlberg, said that he, as Editor, would feel the loss seriously, because Perlberg was one of the best Secretaries in the state and his place would be hard to fill.

The resignation of Dr. C. L. De Meritt, as a member of the Board of Trustees, was received and accepted with regret.

The name of Dr. Frank Pearlstein, of West New York, was presented and in due form he was elected to fill the unexpired term of Dr. De Meritt.

The paper of the evening was "Studies in the Diagnosis and Treatment of Pulmonary and Pleural Suppuration" by Dr. Harold Neuhof, Attending Surgeon at Mount Sinai and Montefiore Hospitals. Dr. Neuhof divided the presentation of his subject into 2 parts, discussing first, types of Pulmonary Suppuration; and secondly, types of Pleural Suppuration.

Bayonne Hospital Clinical Conference

Maurice Shapiro, M.D., Reporter

April Meeting

The regular monthly Bayonne Clinical Conference was held Monday evening, April 4, at 9 p. m., at Bayonne Hospital, with Dr. Donohoe, as chairman.

Dr. Brooke reported for the Surgical Service the following deaths, with reports of autopsies.

Case 1. J. K., a white man, entered with a history of having struck his knee against the corner of a sewing machine table, 8 months previously, sustaining a horizontal fracture of the right patella; a cast was applied, and upon removal of that cast, the right knee began to enlarge, gradually, until, on entrance, it was twice the size of the left knee-joint freely movable in all directions. In view of the positive Wassermann, and x-ray examination, the diagnosis of "cord-syphilis" and "Charcot's Joint" was made.

About 6 weeks later, the patient's condition suddenly changed; temperature arose, he had chills and profuse perspiration, and presented signs of a septicemia. Blood culture was positive for *Staphylococcus aureus*, and he expired on the sixth day, of traumatic infectious arthritis and septicemia.

This patient was presented at a previous meeting, when the radiograph, Wassermann test, and clinical symptoms, all pointed toward a Charcot's joint.

At autopsy, there was revealed a destruction of the joint, with pus from which *Staphylococcus*

aureus was recovered. In the discussion, some said that possibly there was a Charcot's joint and the traumatic infectious arthritis was a coincidence. On the other hand, most of the men present felt that this was a traumatic infectious arthritis coincident with spinal lues and that destruction of the joint caused simulation of a Charcot's joint.

Case 2. J. K., aged 31, white male, entered because of injuries received in an automobile accident while under the influence of liquor. He had a compound fracture of the femur, puncture wound of the arm, and multiple abrasions of the face and body. Treated for shock on entrance. Extremely toxic the following day; temperature elevated; the white blood cells were high and he perspired profusely. The following day, breathing was labored; lungs edematous; pulse slow and weak. Expired that day, of hypostatic pneumonia.

Case 3. T. S., aged 13, white male, fell from a porch about 2 weeks prior to entrance to the hospital, injuring the right side of his body. Five days following the injury, he developed a high fever, chills and profuse perspiration, and his right ankle became swollen and tender; and, there was fluctuation. Two days before admission, a similar condition developed in the right forearm. The lateral surface of the right leg was incised and drained by a private physician.

Blood culture was positive for *Staphylococcus aureus*, and same organism was isolated from pus obtained from the wound. He soon developed a similar condition in the left hip, and there were also signs of a peritonitis. Autopsy disclosed osteomyelitis of tibia, ulna and femur with septicemia.

Dr. Finger reported for *Dr. Brooke*, the following surgical case:

Case 1. D. B., aged 40, white male, entered with a history of repeated attacks of pain in the right upper quadrant, followed immediately by jaundice which disappeared a few days after the attack subsided. There was a history of nausea and occasional vomiting, and after fatty meals, he had noticed marked epigastric pain.

There was some tenderness and slight rigidity in the right upper quadrant. He had 2 typical attacks in the hospital before his operation; blood count was normal, urine essentially negative, and gall-bladder series suggested a cholelithiasis.

The abdomen was opened and a thick, rather small, chronically inflamed gall-bladder was found, with tissue friable, and evidence of its having undergone fatty degeneration; also it was adherent to the surrounding organs. It was exposed with difficulty, but finally was resected. Immediate postoperative condition was good. However, on the third day the drainage was immense; incision dressed 4-6 times a day. The discharge was at first thin, yellow and not unlike bile, later it became thick and mixed with food particles that had a fecal odor; and diagnosis of duodenal fistula was made. The wound grew gradually larger and drainage became more copious. Duodenal contents began to attack the abdominal wall, undermining the incision and producing quite a cavity. The contents also eroded the skin, and the area about the incision was of an angry red color and bled freely. Something had to be done immediately. A catheter was inserted into the wound and connected to a suction apparatus; duodenal contents were evacuated every half hour, at first; later, the intervals were increased, and finally suction was

completely arrested. The total time of suction was 6 days. At present there is hardly any drainage, the cavity is filling up with granulation tissue, the skin is healing and his general condition is good. The final diagnosis was chronic cholecystitis with fatty degeneration, and a post-operative duodenal fistula.

Dr. Brooke, discussing this subject, stated that most patients with duodenal fistula die as a result of the autogenous digestion of the abdominal musculature by fluid from the fistula. There are 2 methods of combating this condition: One being the suction method here employed; the other, consists in application of a mixture of diluted hydrochloric acid and beef peptone. Reviewing the literature available it was found that the beef peptone method has usually been unsuccessful; that while it might work in the test tube, it is not of any avail on the human subject. He, therefore, decided to use the suction method. He complimented the internes and nurses upon their ingenuous and conscientious treatment of this patient and said it was their work that saved the patient's life.

Case 2. P. K., aged 55, white male, was brought to the hospital in acute distress, complaining of excruciating pain in the upper abdomen. Members of the family gave a history of his falling from a ladder or a porch, but the patient himself denied any sort of injury. He gave a history of stomach disorder for about 3 weeks, and only on the morning before admission did he have such severe pain. He had been a chronic alcoholic. In bed, he was tossing about as if in great agony; face was anxious, drawn and contorted; the abdomen was scaphoid, the upper half being board-like in rigidity and extremely tender on palpation.

At operation that same morning a sub-serous peritoneal hemorrhage was found; probably from a ruptured pyloric vein. No free blood in the abdomen, which was closed without attempting to find and ligate the vessel. Patient was sent back to the ward in good condition but he was extremely restless, irritable and tossed from side to side of the bed. Narcotics had very little effect. On the second postoperative day he became very dyspneic, coughed a good deal, his temperature ran up and he complained of pain in left chest and presented signs of consolidation in the left lower base. About 3-4 days after operation, during one of his coughing spells, he herniated a loop of intestines through the abdominal incision. He was taken immediately to the operating room, the incision was opened, and there were very few signs of a healing process; in fact, the tissues showed signs suggestive of degeneration and necrosis. The loop of bowel was replaced; through and through silk worm sutures were used to close the abdomen; but, as expected, he soon ran a high temperature, became extremely toxic; dyspnea and cyanosis developed; he became delirious, comatosed and expired.

Case 3. T. E., aged 12, white male, entered March 16, with complaints of pain and swelling of left shoulder since last November. He had some injury to that shoulder and it began to pain him intermittently. About 1 month ago he noticed a swelling of this shoulder, gradually increasing, and a few days before admission he had fever, the swelling grew much larger and the pain more severe. Examination revealed a shoulder markedly swollen with obliteration of the natural anatomic landmarks. March 18 an incision was made over the left shoulder posteriorly; very

little free pus; examination of the scapula through the incision revealed numerous areas of bone destruction and soft tissues very edematous. The postoperative course was good; temperature came down; swelling decreased in size; and there is at present only a small amount of drainage. Wassermann, negative. Diagnosis was osteomyelitis of the scapula.

Dr. Larkey demonstrated the x-ray films, showing early rarefaction, with involvement of the round cells, which showed active inflammation going on; later followed by active destruction of the bone.

Dr. Shapiro did not question the diagnosis but suggested that, usually, so-called flat-bone osteomyelitis has proved to be syphilis; that while this patient presented a negative Wassermann and no clinical signs of congenital lues, he felt that the question of syphilis should not be overlooked and suggested that if the lesion did not heal within a reasonable time, a course of anti-luetic treatment be instituted as a therapeutic test.

May Meeting

The regular meeting of the Clinical Conference of the Bayonne Hospital was held at the Hospital Monday evening, May 2, with Dr. Pinkerton, Acting-Chairman.

Dr. Fifer reported for the Surgical Service of Dr. Pinkerton.

Case 1. N. W., aged 34, white female, was referred to the hospital by a private physician. Chief complaint was severe abdominal pain, associated with nausea and occasional vomiting. A similar attack several months ago. Marked tenderness but no rigidity in lower abdomen. Mass about size and shape of a large grape-fruit could be palpated in midline extending from just below the umbilicus to the pubes. Bimanual examination revealed a uterus, uninvolved and separated distinctly from this mass. Patient was catheterized and the condition shown not to be a distended bladder. At the same time, the mass appeared to grow larger. Pre-operative diagnosis: possibly pedunculated fibroid; or an ovarian cyst with twisted pedicle. Abdomen opened and hydrosalpinx found. Condition good, and making an uneventful recovery.

Dr. Cares, pathologist, showed the removed mass, which was dark red, glistening, no adhesions; pedicle was twisted. Ovaries normal.

Case 2. M. R., aged 14, white female, first seen in the skin clinic, on entrance complained of frequent nose bleeds and of bruising on the slightest provocation.

Examination of the mouth revealed several mucous membrane hemorrhagic patches. Skin was covered with many hemorrhagic and purpuric spots.

History of numerous and prolonged attacks of epistaxis; on many occasions nose had to be packed to control hemorrhage. Following a Wassermann test she had a severe and extensive suffusion of blood into the subcutaneous tissue around the elbow. Internal and intravenous medication to decrease bleeding time were without result. During her stay at the hospital, had 4 transfusions of blood. Abdomen was opened and the spleen removed.

The blood picture from the time she was admitted was interesting, particularly the increase in blood platelets after the operation, and the remarkable lessening in the bleeding time. The spleen that had been removed was normal in size, but section showed dull brown areas due to des-

truction of red blood cells and platelets, and hyperplasia of the reticulum cells which caused destruction of the blood platelets.

Dr. Feinberg reported for the Medical Service of Dr. Deary.

Case 1. Reported as one of mistaken diagnosis, and for its interesting postmortem findings.

S. M., aged 61, white female, was sent to us by the City Physician. Patient was ill with a chronic, persistent, slightly productive cough, generalized weakness, difficult and labored breathing for the past 2-3 weeks.

Examination of chest showed a large area of consolidation posteriorly, over right middle lobe, with bronchial breathing; fine and coarse râles, with harsh breathing, heard from remainder of the right lung. Left lung—showers of finely scattered râles; heart slightly enlarged to the left but sounds of good quality.

Blood pressure 232/58. Urine: albumin, 3+ and finely granular casts. Blood: 60% hemoglobin; 3,840,000 R. B. C.; leukocytes 7800; differential: 72 polys, 27 lymphocytes, 1 eosinophile. Diagnosis: bronchopneumonia; advanced pulmonary tuberculosis; hypertension; chronic nephritis; all entertained.

On admission, patient's breathing was somewhat labored, with a mucous rattle in the throat. Temperature was 102.6° and came down to normal in 2 days. Mucous rattle cleared up, the breathing became normal and the patient apparently well, but the physical chest signs persisted, so a chest radiogram was ordered. It showed the right lung to have irregular areas of productive infiltration together with a generalized fibrosis. The infiltrated areas were both discrete and confluent, irregular and patchy; a similar process noted in the lower lobe of the left lung. Findings indicated presence of a bronchopneumonia, probably tuberculous in origin. Sputum repeatedly sent to the laboratory but a negative report always obtained. Patient was afebrile for 2 weeks, and was then seen by Dr. Marshak, who was convinced that the process was tuberculous. Patient suddenly became dyspneic and expired in a short time. Postmortem examination showed unresolved bronchopneumonic consolidation in which the normal process of resolution did not occur. Something happened, within the lung tissues or in the blood stream, which prevented autolysis of the exudate. The color of the lung was that found in acute interstitial pneumonitis. The patient also showed a moderate amount of hepatitis.

Case 2. J. K., aged 45, white male, was exhibited at the last meeting as a case of chronic pulmonary osteo-arthritis in which the patient presented marked clubbing of the fingers and pulmonary pathology, the nature of which was questionable. At that time, a pulmonary neoplasm or a possible tuberculous pneumonia was considered. A series of x-ray pictures was shown, marking progress of the lung pathology, and it was reported that although the patient brought up abundant sputum, repeated examinations for the tubercle bacillus were negative. It was also reported that despite the marked increase in the chest pathology, the patient appeared no worse, or in fact, felt better than when he first entered the hospital.

Today, we still have that patient with us. Physically, he appears in the same condition as when he entered, and symptomatically he is greatly improved. This is the patient's seventy-second day in the hospital. He has been running

a septic temperature for a number of weeks but for the past 10 days he has been practically afebrile. He is bringing up profuse amounts of foul smelling sputum, mucopurulent in nature. At present his blood picture shows 36% hemoglobin; 2,470,000 R. B. C.; 10,150 W. B. C.; 78% polys; 20% lymphs; and 2% monocytes. When he entered his blood picture was 45% hemoglobin; 3,160,000 R. B. C.; 11,200 W. B. C.; 60 polys; 30 lymphs; 9 monocytes and 1 basophile.

Radiologist says: "A reëxamination of the thorax shows absent illumination devoid of pulmonary markings throughout the entire right chest. The tracheal shadow is deviated to the right and there is also a retraction of the cardiac shadow to the right. Findings suggest a complete massive collapse of the right lung."

The chest showed complete dullness on percussion over the entire right lung, with pure tubular breathing, resembling a pneumonic consolidation. At the bases, the breath sounds are decreased, suggesting fluid. Attempt to aspirate was negative for fluid. Is being given inhalations of carbon dioxide and oxygen 3 time a day.

Dr. Greenberg reported a case for Dr. Weiss. M. N., aged 30, white female, entered with chief complaint of vaginal bleeding. Onset 4 days before entrance. Early in the morning of the day she entered the hospital, a physician was called in to see the patient who was bleeding profusely at that time. Patient immediately brought to the hospital, and a macerated fetus was manually expressed. Placenta remained in the uterus. Patient continued to bleed. She was packed and taken to the operating room where, under light anesthesia, the placenta was manually removed. Postoperative condition was poor; temperature shot up immediately; she became pale and cyanotic; pulse imperceptible; heart sounds weak and distant; bathed in a cold, clammy sweat; finally, expired on the day after entrance to the hospital.

Our diagnosis was incomplete abortion; post-abortion sepsis; sapremia; gangrene of the uterus and cervix.

HUNTERDON COUNTY

Barelay S. Fuhrmann, M.D., Reporter

The Regular Quarterly Meeting of the Hunterdon County Component Medical Society was held in Flemington, Tuesday, April 26, at 8:30 p. m., with the following present: Drs. Topkins, Gramsch, Tompkins, Fulper, Closson, Lane, Boothby, McCorkle, G. N. J. Sommer and Dr. Leo Haggerty, of Trenton.

Dr. Sommer spoke regarding new laws that had been presented to the Legislature this past session, stressing their merits and demerits, and then, in his very charming manner, discussed the relation of "Gastric Cancer to Ulcer of the Stomach and Duodenum". After some discussion by our members, Dr. Sommer reported a case of "Hodgson's Disease", and that ushered in a very lively discussion.

Dr. Haggerty presented the methods used by the State Society to keep track of pending legislation, and the methods used in support or protest of legislation as presented.

The application of Alex. Christensen was presented and, as he was a member in good standing in the Hudson County Medical Society, the formality of being referred to the censors was dispensed with and he was unanimously elected a member of this society.

MERCER COUNTY

A. Dunbar Hutchinson, M.D., Reporter

The Mercer County Medical Society met in the Carteret Club, May 11, with the President, Dr. Wilbur, presiding.

The usual order of business was suspended and the privilege of the floor granted to Mrs. Ethel C. Taneyhill, Field Secretary of the State Society, who very briefly and concisely outlined the history and organization of her division of Health Extension Work; reciting statistical reports of the scope and amount of work accomplished during the past 4 years; and finishing her address with an earnest plea for a more coöperative effort on the part of the Mercer County physicians with reference to Public School Educational Authorities and all allied associations.

Dr. Leon S. Loizeaux, Chief of Staff of the Fifth Avenue Hospital, New York City, addressed the Society on the subject of—"Obstetric Technic, from Prenatal to Postpartum". The address comprised a very complete description of the mode and manner of caring for the expectant mother, from history taking to the day of delivery; followed by a most interesting and instructive detailed exposition of her progress through delivery, with subsequent care, and final disposition in relation to medical supervision. Many advanced ideas were related, in conjunction with the mechanical appliances used in the several departments of maternal, parturient and postpartum care.

Dr. Haggerty gave a résumé of pending medical legislation.

Dr. Little reported the completion of the Post-Graduate Courses, arranged for jointly by Rutgers University and the State Society, with commendatory approbation.

Following the casting of ballots, the President declared Drs. F. D. Hunter, J. F. Kustrup, E. B. Mewborne and A. B. Light, elected to Associate Membership.

The applications of A. G. Ireland, M.D.; E. G. Meriwether, M.D.; and W. R. Peterson, M.D., were read and referred to the Membership Committee.

The President appointed Drs. Scammell, McGuire and Collier as a Committee to draw resolutions on the death of Dr. J. F. Higgins.

MIDDLESEX COUNTY

Samuel G. Berkow, M.D., Reporter

The regular meeting of the Middlesex County Medical Society was held Wednesday, April 27, at Hotel Pines, Metuchen. Those present were: Drs. Rothschild, Bassett, Feher, Rowland, Csema, J. V. Smith, Hoffman, Brody, Kramer, Lund, Runyon, Tilton, Silk, Mark, Spencer, Karshmer, M. F. Urbanski, Nafey, Henry Jr., London, Brown, Johnson, M. Smith, William Klein, McKiernan, Kler, Wilentz, Faulkingham, Kovarsky, and Berkow.

Dr. J. V. Smith, Chairman of the Educational Committee, reported that the Post-Graduate Course given by the State Medical Society in conjunction with Rutgers University, has been highly successful.

Dr. Kramer reported for the Executive Committee.

Dr. Spencer remarked on the claim of the Hudson County Society—to be the oldest County Society in the United States. It is the understanding of our members that Middlesex County is en-

titled to that honor. The Secretary was asked to communicate with Hudson County relative to this claim.

Dr. Mark reported the following resolution from the Committee on Public Relations.

Resolved, that the duties of the Committee on Public Health be as follows: It shall be the duty of the Committee on Public Health (consisting of 5 members appointed annually by the President) to confer with the representatives of the municipal, county or state governing bodies on matters of Public Health; and, when requested, advise such officials upon the policy which, in the judgment of the Committee, is best to pursue in any Public Health matter. It shall have the right to formulate policies of Public Health; and to give publicity to these and to other matters which may be of benefit to the medical profession and to the public at large. It shall also confer with the Society's representatives on the Welfare Committee of the Medical Society of New Jersey on matters of legislation; either upon its own initiative or when directed to do so by the society.

Dr. Mark read a communication from Miss Packard of the Tuberculosis League of Middlesex County.

Dr. McKiernan commended Dr. Silk on his valuable work in tuberculosis. Dr. Silk has been president of the Middlesex County Tuberculosis League for 11 years.

Dr. Mark reported that his committee has distributed, for publication in the county newspapers, an article on the work of the county society. This article has appeared in several of the county newspapers, and a copy was given to each member present at this meeting.

The chief topic of the evening—"Establishment of free clinics in various municipalities"—was then introduced by Dr. Mark.

Dr. McKiernan, the President, requested expressions of opinion from each member present. Dr. Berkow commented on local conditions in Perth Amboy, expressing need of caution in establishing free clinics, since at present the medical care of the poor is adequately met by the physicians practicing in the city. Dr. Bassett, of Dunellen, opposed the establishment of clinics, and deplored inadequate social service, and cited experiences as Chief of the Pre-natal Clinic in Muhlenberg Hospital, Plainfield. Dr. Wilentz stated that the consensus of medical opinion in Perth Amboy is opposed to the establishment of clinics. Dr. Spencer, of Woodbridge, stated that there is no necessity for clinics in his township. Dr. Henry Jr., of Perth Amboy, cited illustrative cases which were over-served by lay organizations. Private physicians could not compete with these groups, which provide automobiles and trained workers to take individuals in need of medical care to and from clinics. Dr. London, of Perth Amboy, stated that the Relief Committee in Perth Amboy refers patients to physicians and that these receive the same care as private patients. He stated also that Perth Amboy has 2 city physicians who also make house calls; and declared that the greatest need of medical care is for poor people who are sick in bed, and not for those able to attend clinics; and gave some experiences in the Kiddie Keep Well Camp, from which he resigned because attendance was not restricted to people who could not afford private patient care. Dr. Silk, of Perth Amboy, stated the advantages of clinics to the medical profession; they raise the standard of practice, he said, and have educational value. Procedures may be

popularized; for example, periodic health examination. Dr. M. F. Urbanski, of Perth Amboy, Commissioner of Public Safety for the past 6 years, and in charge of the Department of Health as well as of relief measures, then spoke and said that every doctor's office today is a clinic. No one is sent away for lack of means. In this way, patients who are not able to pay for medical care receive private attention from physicians who attended them when financial conditions were better. Dr. Urbanski stated that Perth Amboy spends \$4000 a week for direct relief; 2 physicians are employed and there is a dental clinic. In view of the large sum spent for relief, Dr. Urbanski stated that should conditions require it, he would place more physicians on the city payroll to take care of individuals seeking medical care. It is his opinion that physicians should be compensated for their civic work, as teachers are, and other civic workers. Dr. J. V. Smith voiced his agreement with Dr. Urbanski's views. Dr. Johnson, of New Brunswick, stated that when doctors receive compensation for their clinic work, this is tantamount to *state medicine*. Dr. Kramer, of Perth Amboy, stated that the out-patient-departments are a source of revenue and that the proceeds should go to medical attendance. He said that the Health Department of the city should increase its medical staff, if necessary. Dr. Hoffman, of New Brunswick, urged adequate control of established clinics. Through abuse, clinics become competitors of the physician. He is opposed to extension of clinics in new territory. Dr. Runyon, of New Brunswick, stated that the majority of people receive free care, but that the New Brunswick clinics are not run for profit. Dr. J. V. Smith quoted an article in a recent issue of *International Medical Clinics* to the effect that the majority of o.p.d.'s. do make money. Dr. Wetterberg stated that clinics make money and pay all their personnel except the doctors. Dr. Rothschild, of New Brunswick, stated that New Brunswick clinics are not run at a profit. Dr. McKiernan stated that clinics are sometimes abused, but abuses can be eliminated. Only 10% of people who can pay attend free clinics.

Dr. Mark stated that his committee was grateful for the expressions of opinion and proposed the following resolution: That the question of free clinics should be left to the municipalities. Resolution was seconded by Dr. Smith and received affirmative vote.

Dr. Rowland read a questionnaire sent to him by the State Society Committee on State Medicine. Information requested in this questionnaire was furnished by the physicians present.

Dr. Nafey stated that his Committee on Medical Ethics approved the following applications for membership: Drs. Calvin, Hilker and Japhe, of Perth Amboy; Kraczyk, South River; Reinhold, Milltown; Armstrong, New Brunswick. All were elected.

Dr. Rothschild, of New Brunswick, read a paper on "Lead Encephalopathy". The patient developed neurologic symptoms 14 years after a brief exposure to lead. Dr. Mark, physician for the United States Metal Refining Company, gave a comprehensive discussion of lead hazards as related to neurologic symptoms. He outlined the newest treatment for this condition and explained the present conception of P H concentration in the mobilization of lead from bone and other tissue deposits, and its elimination. Dr. M. F. Urbanski reported his experiences with a fatal case of lead poisoning, in which he was able, for the first

time in local courts, to win a verdict for the family of the deceased under the Workman's Compensation Law. Dr. Henry Jr., added to the discussion his own experiences with lead and citations from recent literature.

A collation was served.

Medical Section Rutgers Club

J. H. Rowland, M.D., Secretary

The regular monthly meeting of the Medical Section of the Rutgers Club was held on Friday, March 18, at the Hotel Klein, with 20 members present and Dr. F. C. Johnson presiding.

There being no business, the meeting began immediately with the scientific program. The speaker of the evening was Dr. John F. Killian, Professor of Biochemistry in the Post-Graduate Medical School, New York City, who spoke on the subject of "Blood Chemical Studies in Diseases"; his talk being illustrated with lantern slides. Dr. Killian presented very briefly and very concisely the functions of the liver, which are of practical value in relation to disease. He stressed particularly the importance of the determination of bilirubin and cholesterol in the blood, the bile acids, and the determination of urobilin in the urine; pointing out many important facts concerning these tests, and calling particular attention to the fact that cholesterol is increased in the blood only in association with obstructive jaundice. Bile acids are destructive agents to the liver, when increased above normal. Urobilin is negative in complete obstruction.

Dr. Killian spoke also of protein metabolism as a test of liver function, stressing the nitrogen partition. He pointed out particularly the importance of the ratio of urea-nitrogen to non-protein nitrogen, which should be 1:2. When the urea nitrogen is decreased in relation to non-protein nitrogen, there is an increase in the rest nitrogen content, indicating deficiency of liver function. An increase in amino-acids indicates liver destruction. Another function brought out was the determination of calcium, pointing out 3 fractions of calcium: the non-dialyzable fraction; the dialyzable fraction, a calcium which becomes ionized; and a dialyzable calcium which exists in solution, in the blood; the ionizable calcium being that part concerned chiefly in the coagulation of blood, which has to do with liver function.

Dr. Killian's paper was most interesting. There was some discussion by the members present.

After the meeting, the members were entertained at dinner by Drs. Forney, Gutmann, Hoffman and Howley.

Medical Section Rutgers Club

J. H. Rowland, M.D., Secretary

The regular monthly meeting of the Medical Section of the Rutgers Club was held on Friday, May 20, at the Alumni House, Queen's Campus, Rutgers College; with 22 members present, and Dr. Benjamin Gutmann presiding.

The speaker of the evening, Dr. D. P. MacGuire, of Columbia University and St. Vincent's Hospital, New York, gave a talk on the "Gall-Bladder", illustrated with lantern slides.

Dr. MacGuire spoke briefly concerning chemistry of the blood in gall-bladder disease, presenting many suggestive points in technic, including many

precautions. He spoke also of the 3 types of death complicating operations on the gall-bladder: (1) Sudden death with no apparent cause excepting change in chemistry of secretions and suppression of functions of the liver. (2) Associated with severe liver damage. (3) Associated with pancreaticitis.

Dr. MacGuire also pointed out the danger of death from hemorrhage. As a means of decreasing mortality, he stressed the importance of studying transduodenal drainage, the functional dye test, x-rays, blood chemistry, electrocardiograms, the free use of glucose and saline, spinal anesthesia, and the necessary precautions for preserving body heat. Under complications he stressed the consideration that must be given to cholangitis. He advised against hurried operations, and explained the importance of waiting, particularly in acute cases, believing that risk is markedly reduced by watchful waiting.

There was free discussion of the subject by our members.

Dr. Gutmann then proceeded to business, naming the following committees: Constitution: Drs. Runyon (Chairman), McKiernan and Nafey. Auditing: Drs. Merrill (Chairman) and Faulkingham. Program: Drs. Walker (Chairman), Brown and Johnson. Entertainment: Drs. Klein (Chairman), Hoffman and McKiernan. Nominating: Drs. Klein (Chairman), Haywood and Fagan.

Dr. Karshmer was appointed Custodian of the Lantern.

At this point, Dr. Nafey gave a long talk on the appropriations of the United States Government with relation to veterans, pointing out the abuses and waste of money in this respect.

The members were entertained with refreshments by the Entertainment Committee, composed of Drs. Klein, Leonard, Nafey and McGovern. Meeting adjourned spontaneously.

MONMOUTH COUNTY

Harold A. Kazmann, M.D.

The monthly meeting of the Monmouth County Medical Society was held at the Fitkin-Morgan Memorial Hospital on April 27, with Dr. Stanley Nichols presiding.

The following report of the Executive Committee was presented: "Our regular meeting was held Tuesday evening, April 18, at the home of Dr. Stanley Nichols, with Drs. Nichols, Fairbanks, Campbell, Rullman, Maher, Fisher and Featherston present.

Discussion on Delegates to the State Society Convention brought out the fact that the Monmouth County Medical Society is entitled to 2 additional delegates to serve for a period of 3 years each. The terms of Drs. Nichols and Parry (who was alternate for the late Dr. B. Garrison), expire this year. It was decided to have the Nominating Committee, which consists of Drs. Fairbanks, Parry and MacKenzie, submit names for consideration at the next meeting.

The subject of radio advertising of proprietary medications and foods, by large radio broadcasting stations, was discussed. In our opinion, this is a matter which should be brought to the attention of the State Medical Society, as it is, apparently, degenerating into the condition in which news-paper advertising of proprietary medications was 10 years ago."

The report of the Executive Committee was unanimously adopted by the society.

The Nominating Committee reported selection of the following named men as Delegates to the state convention in June: Delegate, Stanley Nichols, Alternate, William VanOehsen; Delegate, Robert Watkins, Alternate, D. F. Featherston. The Secretary was instructed to cast 1 ballot. The other Delegates are: William G. Herrman, Alternate, J. C. Clayton; G. V. Warner, Alternate, W. H. Fairbanks; Harvey S. Brown, Alternate, H. A. Kazmann.

Dr. Edward Peterson, Professor of Surgery at the New York Post-Graduate Medical School, gave an interesting paper entitled "Surgical Affections of the Abdomen in Children". The discussion was opened by Dr. Harry B. Slocum and participated in by Drs. Leonard, Rullman, and Parry.

Dr. Harold Kazmann presented "A Case of Imperforate Anus", which is now 2 years old; and, Dr. William G. Herrman showed radiographs of a "Congenital Stenosis of the Esophagus". Dr. Peterson discussed both subjects.

MORRIS COUNTY

Marcus A. Curry, M.D., Reporter

A special meeting of the Morris County Medical Society was held on the evening of Thursday, May 19, at the Shongum Sanatorium (The Morris County Tuberculosis Hospital) by invitation of the Managers and Dr. Harold S. Hatch, the Resident Superintendent.

Vice-President Pinckney, in the unavoidable absence of President Krauss, presided over an attendance of approximately 60 members and guests.

The exercises of the evening were opened by an attractive and adequate dinner which was enjoyed on the enclosed porch of the nurses' home. After dinner, during a period of inspection of the beautiful grounds and well appointed buildings, the porch enclosure was conveniently arranged for holding of the scientific chapter.

The speakers of the evening were Dr. Grant Thorburn, Attending Physician of Bellevue Hospital, New York, who stressed the importance of "Early Diagnosis of Tuberculosis", and Dr. J. Burns Amberson, Jr., Professor of Clinical Medicine at Columbia University, College of Physicians and Surgeons, whose subject was the "Clinical Course of Pulmonary Tuberculosis". Both speakers covered their subjects extensively, with illustrated lantern slides, and their presentations aroused interest.

The speakers stressed the importance of the general practitioner becoming "tuberculosis-minded", and stressed the utilization of every possible facility for early diagnosis, by physical examination, history, repetition of check-up. They emphasized use of the fluoroscope, x-rays, and stethoscope, to disclose the presence of the disease even before its manifestation by outward signs and symptoms. The value of periodic examination was emphasized and the benefits revealed where employers pay attention to their personnel by initial and subsequent periodic examinations, indicating as examples of this, the large corporations and insurance companies; citing the tendency to tuberculosis among young women who marry and continue their employment with the attending strain and responsibility of home obligations and office duties, which combine to reduce resistance and open the way to the disease; also the inducing influence of the present style to be *slim*, which is accomplished by dieting. Realizing that the physician cannot possibly make the diagnosis without the patient,

the importance of educating the public to periodic examinations was stressed, and credit was given to the tuberculosis organizations for their work in searching out early cases and getting them to the physicians for diagnosis. The tragedy of patients who come to the physician for late diagnosis; the diagnostic significance of frequent colds, recurring hoarseness; fatigue; and blood spitting; were among the important things discussed. One speaker said that 9 out of 10 times where fresh blood is expectorated it comes from the lungs, and 9 times out of 10 it means tuberculosis.

Discussion was entered into by Drs. Larson, Abell, Costello, Allen, Hatch, Julia Mutchler, Farrow, Weaver, Pinckney, and others.

Appreciation was cordially exhibited of the efforts of the speakers to make the general practitioner tuberculosis-conscious and to refreshen interest in the subject; and also to Dr. Hatch, Superintendent of the Sanatorium, for the enjoyable and convenient setting for the meeting.

OCEAN COUNTY

Eugene G. Herbener, M.D., Reporter

The regular meeting of the Ocean County Medical Society was held Wednesday, May 4, at Dutch's Inn, Bay Ridge, Toms River, at 7 p. m., with Dr. Blackwell Sawyer presiding.

Minutes of the previous meeting were read and approved. Delegates and Alternates were appointed to attend the State Society Convention, in June.

Dr. Harold B. Disbrow cited some interesting events of his recent trip.

Dr. Davies, of the dirigible "Akron", described the duties and some of his experiences while physician on the "lighter-than-air craft", especially citing cases of men overcome by the effects of helium and monoxide gases.

Dr. W. Dodd spoke of the dangers of poisonous gases, carbon monoxide and methane, in the soft coal mines in Virginia, where he was stationed as *mine physician* for some time.

Dr. Walter R. Peterson gave an interesting talk on "The Specialist", his specialty being Orthopedic Surgery.

Dr. Davies extended an invitation to Ocean, Monmouth, Middlesex and Burlington Counties to visit the Naval Air Station at Lakehurst, some time in September, when the great airship Akron will be at home. A Committee consisting of Drs. Harold Disbrow, Swan and Herbener was appointed to arrange the details.

Drs. John F. Hagerty and J. Bennett Morrison arrived late, because of motor troubles.

Dr. Hagerty gave an interesting talk on the Workmen's Compensation Act, pointing out the mutual benefits derived from it by the workman and the physician.

Dr. Morrison spoke of preparations being made by the State Society to have the Annual Meeting at Atlantic City, June 15, 16, and 17, surpass all former meetings. There are to be a great number of new exhibits and many more than ever before. He pointed out the mutual benefits obtained by attending the Convention, stating that it tended to create a better fellowship and understanding among the members. He earnestly hoped that all members would make every effort to be present.

A vote of thanks was extended to our host, Dr. Blackwell Sawyer, for the fine "Shore Dinner" which was enjoyed by all.

PASSAIC COUNTY

W. W. Hall, M.D., Reporter

The regular meeting of the Passaic County Medical Society was held in conjunction with the Passaic Practitioners' Club, in the Ritz Ball Room, Passaic, May 12, at 9 p. m. Dr. Roemer presided.

The scientific program consisted of a paper by Dr. Alfred Gordon, of Philadelphia, on "Psychoneuroses in Relation to General Medicine"; emphasizing the importance of considering the psychoneurologic examination of every patient.

The paper was discussed by Dr. Robinson, of Greystone Park, and by Drs. Gordon, Jacoby, Levy, Mendelsohn and Warren.

The Amendment presented at the April meeting, by Dr. W. W. Hall, was passed unanimously. The Amendment follows:

A physician licensed to practice in this state, of good moral character, endorsed by 2 members of this society, and in active practice in this county for 6 months or less, may apply for Junior Membership. This membership will be free for a period not exceeding 1 year from the date of his application.

It will be the privilege of a Junior Member to attend all meetings of the society, receive notices of the regular meetings, and to participate in discussions of any papers at the regular meetings; but not to vote or act as a member of any committee or as a Delegate. At the expiration of 1 year, the Junior Member may apply for regular membership in this society.

A representative from a Hudson County newspaper, Mr. Kondell, urged the society to insert the names of its members in the local papers, and also suggested publishing weekly articles on public health problems.

A committee will be appointed by the President to consider the question of *Group Advertising*.

A suggestion was made by Dr. Hall, that a Medical Periodical Library be started by the society; such library to contain periodicals that are not generally subscribed to by the average practitioner, and to be housed in the Paterson Public Library until the society has a permanent place in which to meet.

A committee was appointed by the President to make a further study of this question: Drs. Louis Shapiro, Charles Murn, and W. W. Hall.

Dr. Gordon, of Passaic, made a motion that the dues to the society be reduced, and that the Delegates to the State Society be instructed to support any reasonable measure to bring about a reduction. This motion was passed.

There were 62 members present, and a collation followed adjournment.

SUSSEX COUNTY

F. H. Morrison, M.D., Reporter

The following is the report of the Spring Meeting of the Sussex County Medical Society.

The Spring Meeting of the Sussex County Medical Society was held May 11 at the home of Dr. F. P. Wilbur, in Franklin. Dr. Tripp, of the Stuyvesant Hospital, New York, discussed "Common Skin Diseases", and illustrated his talk with lantern slides. The members were greatly interested and several took part in the discussion.

Mr. E. Blanksteen, representing the Independence Indemnity Company, of Philadelphia, was present and explained the benefits of the Medical

Society's form of group accident and health insurance policy.

The wives of the physicians present were entertained at cards. After the meeting, refreshments were served.

WARREN COUNTY

L. W. Hackett, M.D., Secretary

The Spring Meeting of the Warren County Medical Society was held at the Elks Home, Phillipsburg, Tuesday, April 19, with the President, Dr. A. C. Zuck, in the chair. Minutes of the last meeting were read and approved.

Members present: Drs. Herman Baldauf, L. H. Bloom, H. B. Bossard, F. W. Curtis, L. W. Hackett, C. H. Lyon, C. B. Smith, A. C. Zuck, and F. P. McKinstry. Guests present: Drs. Paul Correll, Madsen, Lane, Zillhson, and Messinger.

The charge of \$28 for use of room at Farrell Arms Plaza, Washington, in which to conduct the Post-Graduate Course, was approved and ordered paid.

A "Bill", which is now pending in Congress—concerning removal of the restriction on physicians as to prescribing medicinal liquor—was read by the President, and upon motion by Dr. Bossard, seconded by Dr. Curtis, the Society approved of this measure and instructed the Secretary to write to New Jersey's Congressional representatives concerning this.

During the discussion, Dr. F. P. McKinstry remarked that, in his opinion, "Prohibition" has absolutely nothing to do with the prescribing of medicinal liquor.

Dr. Paul Correll gave an address on "Observations of 2000 Cases of Appendicitis, with Special Reference to the Interests of the General Practitioner". Discussion of the paper followed by Drs. Bossard, Lane, Smith and Messinger.

Meeting adjourned and dinner was served.

Obituaries

HIGGINS, Joseph F., who has so ably served Trenton as City Physician since 1911, died April 22, 1932, at the age of 56 years.

Death came after an illness of 9 weeks, 4 of which were spent at a Philadelphia institution, where Dr. Higgins was sent from St. Francis Hospital. At the latter institution he had been under the care of Dr. William S. Collier, who directed his removal to the Post-Graduate Hospital.

Survivors include, in addition to his widow, a daughter, Peggy Ann, and 2 sisters, Mrs. John Gormley, of Philadelphia, and Mrs. John Raidy, of Trenton.

Physicians throughout the city and a host of friends affiliated with Dr. Higgins in numerous Catholic and fraternal organizations were shocked to learn of his death. He held membership, in addition to the State and Mercer County Medical Societies and the American Medical Association, in the following organizations: Trenton Lodge, No. 105, B. P. O. E.; Trenton Lodge, No. 164, L. O. O. M.; Trenton Aerie, 100, F. O. E.; Trenton Council, No. 355, Knights of Columbus; The Catholic Club; Division No. 1, A. O. H.; The Jolly Rovers and Trenton Branch, No. 355, Knights of St. George.

Dr. Higgins was a graduate of the former Medico-Chirurgical School, absorbed several years ago by the University of Pennsylvania.

Resolutions on the Death of Dr. Arthur, Adopted by the Mercer County Medical Society

The Committee, appointed by the President of the Mercer County Component Medical Society to draft resolutions on the death of Dr. Francis M. Arthur, of Hamilton Square, respectfully submits the following:

Dr. Arthur, who departed this life April 5, 1932, was born in Orwell, Vermont, June 11, 1875. He graduated from the Baltimore Medical College in April 1901, and began the practice of his profession at once, in Pittsford, Vermont. Three years later he came to Hamilton Square, where he continued his faithful administrations until the time of his death.

Whereas, By the death of our friend and co-worker this society has lost an honored and esteemed member, the community a beloved and efficient physician who was most kind to the sick and needy, honorable in all his dealings, loyal to his colleagues, devoted to his profession, and faithful in the discharge of all his duties; therefore, be it

Resolved; That we, the members of this Society, cherish the memory of his useful life, so full of service and sacrifice, and we desire to express our sentiments of sorrow, and tender our tribute of respect, to so noble a man.

Resolved further, that we extend to his family our profound sympathy, and trust that their grief will be soothed by the assurance that he had the courage that is born of character and faith. He has gone to his eternal rest, to receive the reward of a faithful servant for a well spent life. The evening star of life is transformed into the morning star of hope and fruition. The beloved Husband, Father, Citizen, and Friend has fallen asleep; the sleep that links Life with Eternity.

Be it resolved further, that these resolutions be entered on the minutes of this Society, and a copy transmitted to the bereaved family.

David B. Ackley,

C. F. Adams,

F. B. Zandt,

Members of the Committee.

Resolutions Adopted at a Regular Meeting of the Board of Trustees, at Trenton, Sunday, April 3, 1932

IN MEMORY OF ARCHIBALD MERCER, M.D.

The Medical Society of New Jersey, having learned with deep regret of the death of Dr. Archibald Mercer, wishes to record its sorrow at his passing, and appreciation of his devoted interest in the welfare of the Society and of organized medicine, over a long period of years.

Born in Newark, New Jersey, son of Dr. and Mrs. William Mercer, his classical education was obtained at Newark Academy and Rutgers College. After graduating in medicine from the College of Physicians and Surgeons, New York City, he served an internship in St. Barnabas Hospital, and thus became well qualified to enter upon the practice of medicine, which he followed successfully and with many honors until his last illness.

Among the many positions of honor and use-

fulness that he filled during his long professional life, were: Secretary of the Essex County Medical Society, 28 years; later becoming its President; Treasurer of the Medical Society of New Jersey 31 years, which services were publicly acknowledged by a Reception and Testimonial in his honor, as he was succeeding to the Presidency; Secretary, and later President, of the Society of Widows and Orphans of Medical Men.

In addition, Dr. Mercer was very active and prominent in civil life, being honored by his native city as, Trustee of the Newark Public Library. He was also one of the Medical Directors of the Mutual Life Insurance Company.

During all this unusually long and active professional career, Dr. Mercer evinced a deep and earnest interest in the ethical side of medicine, and in his own life was a splendid exponent of the dignity and worth of the title "Doctor of Medicine".

As an evidence of esteem for his professional attainments, and in consideration of his long and valuable services to the medical profession, the Board of Trustees has caused this tribute to be spread upon its minutes.

John F. Hagerty, M.D.,

J. S. Green, M.D.,

Wells P. Eagleton, M.D.

Resolutions by the Mountainside Hospital Staff on the Death of Dr. Walter Post

Whereas our beloved colleague and friend, Dr. Walter Post, has been taken from us; and

Whereas we realize that we have thus sustained the loss of a loyal and most companionable friend and colleague, in the very prime of his usefulness and influence; and

Whereas we shall miss his kindly and inspiring friendship and counsel, both in our institution and in the community; and

Whereas we, a committee representing the Medical Staff of the Mountainside Hospital of Montclair and Vicinity, do hereby try to express our deep regret at his passing, and our heartfelt sympathy for the members of his family in their bereavement;

Be it resolved that these resolutions be spread upon the minutes of the Staff Meeting and that a copy of same be sent to the family of Dr. Post, and to the press.

Committee:

John D. Moore, M.D.,

Herbert Foster, M.D.

POST, Walter, of 17 Park Place, Bloomfield, died at his home April 1, 1932, from heart trouble after an illness of a year. He was one of Bloomfield's oldest physicians in point of service.

Born in Secaucus 54 years ago, he was the son of the late Mr. and Mrs. John Post. He was educated at New York Homeopathic Flower Hospital and began his practice 30 years ago in Bloomfield.

He was a member of the staff at Mountainside and Homeopathic Hospitals and a member of the Montclair Society of Physicians and Surgeons and the New Jersey State and Essex County Medical Societies. He also was a member of Westminster Presbyterian Church, Bloomfield.

Dr. Post leaves 2 daughters, Helen and Marion.

ATTENTION

AN IMPORTANT PROPOSITION

Control of Specialism

The House of Delegates, at the meeting scheduled for June 15, at Haddon Hall, Atlantic City, will be asked to adopt a carefully devised plan for the control of "specialism" and the guidance of specialists. At the Annual Meeting of 1931, held in Asbury Park, Dr. E. G. Waters, of Jersey City, submitted a plan for the regulation of special practice in medicine and surgery. The primary objectives to be attained were: (1) protection of the people against *so-called specialists*, who are frequently, if not always, poorly equipped and generally unfit to meet the recognized qualifications for special practice; (2) protection of the *real specialists* against the *spurious type* whose usurpation of an honorable title, and lamentable performances in the field of scientific medicine, disgrace the profession.

Shortly after his election, President Haggerty announced the desire to crown his occupancy of the presidential office by putting into effect the Waters plan for recognition and certification of those members of this society who wish to practice and to be known as specialists. He set to work studying the applicability of Dr. Waters' plan. With his constant love of simplicity and his skill as a surgeon, he soon marked the non-essentials and had all the frills shorn away. Advice was sought from many quarters, group consultations were held and opportunities were afforded for argumentative disposal of conflicting theories and opinions.

Always working coöperatively with Dr. Waters, however, and discussing with him every suggested alteration, the President ultimately had the plan reduced to its "lowest common denominator" and that draft was submitted to the State Society's Welfare Committee on Sunday, May 29. At that meeting consideration was given to each section and each paragraph, and then, one at a time, each was voted upon and adopted. Finally, the whole plan was considered, as an entity, and voted upon—receiving again unanimous approval.

Unfortunately, we cannot reproduce it here in its entirety but it is hoped that in some manner copies may be delivered to Delegates prior to the date of meeting when it is to be offered for adoption.

If adopted and put into effect, this will constitute one of the most important and most progressive steps ever taken by any State Medical Society. It promises to be one of those rare instances in which the profession has voluntarily acted to prevent legislative interference (which had been threatened, however, even here), and to keep in its own hands control of its own affairs.

No matter whether you are a *specialist* or a *family physician*, it will be to your interest to have this plan of Dr. Waters put into operation. Vote for it, personally, or through your Delegate to the State Society.

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PRESIDENTIAL ADDRESS*

JOHN F. HAGERTY, M.D., LL.D., F.A.C.S.,
Newark, N. J.

Among the purposes for which our Society was founded, were: "to elevate professional standards; to safe-guard the material interests of the profession; to educate the public in the prevention of disease and the preservation of health; and, in general, to render the profession most capable of serving humanity." That these worthy objects have been successfully accomplished, is attested by the advanced age of our Society and the flourishing condition in which it finds itself after 166 years; and the health and happiness of the people and their freedom from pestilence and disease. For the great privilege of assisting in this humanitarian work and the honor of coöperating with officers, committees and members, all of whom have labored so diligently and faithfully in the performance of their duties, your President acknowledges his sincere gratitude and profound appreciation. The most satisfying testimonial that an individual may receive from his co-workers in any field of endeavor is their approbation and esteem, and this, I like to feel, was implied in my election to the Presidency of our Society. While never lacking in appreciation of the importance and dignity of the office and of the representative men who have shed lustre upon it during the long and useful career of

the Society, a more intimate acquaintance with the members throughout the state has further impressed me with the high honor which such office brings, and has encouraged me to give of the best of my ability in order to justify the confidence shown by you.

The office of President, while entailing a considerable amount of work and responsibility is, nevertheless, one of great pleasure and satisfaction and an abundant source of information. One soon learns that there are many problems troubling the profession throughout the state and of the earnest efforts that are being made to solve them; and learns, also, to admire the wisdom and farsightedness of the founders of our Society and the unselfish devotion of their successors who have succeeded in perfecting the organization so as to deal with such problems as they arise. Like all other activities of human kind, medicine has felt the effects of the restless energy and wonderful inventive genius of the people during the marvelous half-century just passed, together with the changing attitude of the people toward customs and traditions established by long years of experience. Quite as truly, it may be said to have felt the blighting effects of the present economic depression and, where formerly it had kept pace with progress in science and the arts, it is now learning to adjust itself to the economic conditions of our times.

The first official act which the President was called upon to perform was attendance at the funeral of Dr. James Hunter, Jr., former President of the Society, who, you will recall, died on the eve of the last Annual Meeting. Tribute has already been paid to Dr. Hun-

* (Delivered at the 166th Annual Meeting of the Medical Society of New Jersey, at Haddon Hall, Atlantic City, June 17, 1932.)

ter's memory, and in recognition of his services to the Society, to which tribute I would be pleased to add my meed of praise and appreciation of his noble qualities and unselfish labors in our behalf. Later in the year, it was again my sad duty to represent the Society at the funerals of Drs. Mercer and Wilson, both of whom had rendered distinguished service meriting the highest reward that the Society could bestow upon them.

One of the outstanding impressions of my year's experience has been that of admiration of the profession because of the interest shown in its work. Visits to the different county societies, apart from the new acquaintances made—which will form one of the cherished recollections of the presidency—have been a great source of pleasure and profit. Everywhere one realizes that the profession is alive to those obligations which the more accurate knowledge of disease processes and scientific study and treatment imposes. It is a pleasure to record that the demands of the people, who, through the press and the radio, are becoming better informed about themselves and the illnesses to which they are subject, and who are expecting a higher grade of service than has been rendered in the past, are being fully met. I know of no profession which shows a greater eagerness to acquire the knowledge and skill necessary for the successful performance of its work and which will merit the approbation of the public.

It is a pleasure to relate that the Woman's Auxiliary has had one of the most successful and satisfactory years of its existence. Due to the enthusiasm and energy of the President, Mrs. Roy Van Ness, an active interest has been maintained by all the County Society Auxiliaries throughout the year. Knowledge of the value to the public of scientific medicine and of the methods of contagion prevention, which has been outlined by the national organization as a Course of Study for State Society Auxiliaries, has provided a splendid medium of interest and activity. Work in behalf of the Society of Widows and Orphans of Medical Men, in Essex County; and in allied organizations in other counties; and enlarging the influence of Hygiea, which brings into the home a knowledge of right

living, sanitation and hygiene, in a language which the people can understand; has been carried on with commendable energy. These interests have served to coördinate the various groups and to provide a definite policy of action for the future.

Along the same line of endeavor, the work of our Field Secretary may be cited. Mrs. Taneyhill has, as a result of her long experience, been able to crystallize her work this year so as to obtain the maximum results; and, because of the favorable impression she had already created in schools and organizations previously visited, her lectures have grown in popularity and value. Her report will give a more intelligible, detailed account of what has been accomplished, and the numerous letters and testimonials will, when published, give a better idea of the value of this public educational work than I could; though I may say for myself that the number of appreciative letters received, and the more accurate knowledge of her work gained from interviews, reading of addresses and attendance at her lectures, has convinced me that she worthily represents the Society in its missionary work to the lay public.

One of the admirable features of our Society is the provision made for expression of its attitude toward the many related problems of medicine. The Welfare Committee is composed of 35 members, including the State Society's President and Secretary. Every County Society has on the Welfare Committee at least one representative. The committee meets several times during the year to consider and pass judgment on matters of importance to the profession. It will be heartening to you to know that at every one of those meetings the committee registers almost 100% attendance; and it is a splendid evidence of the zeal and interest in the welfare of the profession—that men from all parts of the state should, at great sacrifice of time and convenience, gather so often for deliberation and careful consideration of matters which concern vitally the interests of the profession and of the public. Your President cheerfully pays tribute to the fealty and labors of the Welfare Committee, under the intelligent supervision of its Chairman, Dr. Lippincott.

The Tristate Conferences, which our own Society may claim the honor of having initiated, are a fruitful source of knowledge. They are attended regularly by the officers and the Ex-Presidents of the respective 3 State Societies, all of whom are familiar with the problems of immediate concern to the profession. The broadening influences that come from such interchange of views, together with the stimulating effects of personal contacts and the lessons learned to apply to home problems, make this activity of our State Society a praise-worthy feature of its work.

Enlistment of the younger men of the state, with their enthusiasm, in the Annual Conference of County Society Secretaries and Reporters, also one of the newer developments in our Society, is rapidly justifying itself. Here again, the value of interchange of thoughts and ideas which stimulate the members to friendly rivalry in keeping their respective County Societies to the fore, has proved very instructive and helpful. Out of these meetings has come elaboration of the plan for *control of specialism*, and there have been introduced other propositions, the discussion and publication of which in the Journal has proved a splendid source of education. It is a pleasure to add also that the Journal is maintaining the very excellent reputation acquired during the past few years. Through the Original Articles, Editorials, Hospital and County Society Reports, and Special Departments, it has become an important factor in keeping the profession abreast of the times in medical science, and it provides a comprehensive review of the interests and happenings of the profession throughout the state. The high regard in which it is held by other State Societies reflects creditably on our own.

Many invitations were received during the year to meetings of groups interested in special subjects, and when possible, they were gladly accepted. The privilege of addressing the Child Hygiene Conference and the Conference of Midwives of Northern New Jersey, both being under the State Department of Health, and learning of the splendid work that is being done and the wonderful results that are obtained in those fields, is gratefully

acknowledged. Everybody familiar with the midwife situation a generation or so ago would gladly pay tribute to the improved conditions brought about by the Child Hygiene Bureau of the State Department of Health. And this leads me to say that there should be closer affiliation and coöperation between our State and County Societies and the State Department of Health. While each has distinct functions, their problems, as instanced above, are closely interrelated.

Because of the peculiar financial conditions occurring during the year, some unusual problems presented themselves. An effort was made to anticipate demands that might be made by the sick poor, and, also, to provide relief for physicians who might feel seriously the strain of adverse conditions. Confidence was not wanting that the profession, true to its traditions, would realize the obligations which unemployment and consequent poverty entailed and would cheerfully render help wherever needed. It is comforting to relate that, notwithstanding the depression in all lines of endeavor, no instances of actual want were learned of among members of the profession.

With this brief summary of the ordinary activities of the Society, your President asks permission to refer to some problems of unusual interest and concern to the profession. The removal of the Medical Director and Attending Surgeon of the Hospital and Home for Crippled Children, in Newark, without explanation or consultation with the Medical Board, and his replacement by a surgeon from New York City, came as a distinct shock to his many friends and to the profession throughout the state. This ungenerous and unjustifiable action on the part of the Directors has been disapproved by the Essex County Society and by several other County Societies, and by the Trustees and the Welfare Committee of our State Society; and it has brought into prominence the question of proper relations between Medical Staffs and Boards of Directors of Hospitals. This is a subject worthy of consideration by the Committee on Hospitals and Medical Education, which has already shown an interest in the problem. We cannot escape the thought that hospitals were intended for the care of the sick and that phy-

sicians, with the help of trained nurses, and the facilities which medical science has placed at their disposal, are essential and indispensable in carrying out the purposes of the hospital. All other considerations are secondary, and every effort should be directed, intelligently and harmoniously, toward consummation of such aims. The erection, equipment and cost of maintenance of the modern hospital, it is true, necessitates the out-lay of considerable sums of money and the employment of competent help in the financial management of such institutions; and the time and assistance given to hospitals by able and public spirited citizens is deserving of the highest commendation. But, in all that concerns the care of patients, and use of the resources of the hospital, and relations of the Staff toward the hospital and toward its own members, the wishes of the Staff should be considered. In this connection, let me quote the opinion of Dr. Caldwell, Executive Secretary of the American Hospital Association: "While I believe that it is the responsibility of the Board of Trustees of any hospital to select members of the professional Staff of the hospital, sometimes, in a legal sense, the Trustees are responsible for the professional service in the hospital and must exercise due diligence and care in the selection of those who serve the patients in the hospital, I am still very much of the conviction that no appointment to any Staff of the hospital should be made by the governing board when such an appointee is objectionable to the Staff that has already been created by the Board. And further, that no member of the Staff should be arbitrarily removed by the Trustees without first taking into counsel the professional Staff of the hospital." Originally, hospitals were prompted by charitable impulses. For the successful conduct of modern hospitals, business acumen is a necessary adjunct, but we sincerely trust the time will not come when humanitarian motives will be entirely forgotten.

Answering the appeal of many members to correct injustices and abuses that had crept into the operation of The Workmen's Compensation Act, a special committee, headed by former President Sommer, held several meetings studying those problems. Meanwhile, a

Bill, introduced by Assemblyman Stanziale, greatly encouraged the committee because it provided for the treatment of injured employees by their own physicians, a right to which the profession felt it was entitled. So pleased was the committee with this provision, and so anxious to assure the employers of their desire for fairness and opposition to abuse of this privilege, that, at its suggestion, an amendment was inserted giving the employers the right to consultation when and as often as desired. In spite of this, however, the employers feared that their burdens, already heavy, might be increased by unnecessary medical attention, and the Bill, after passing the House, never was brought to the attention of the Senate. This has been a great disappointment to the committee and, doubtless to the profession, which must, nevertheless, assume its share of responsibility for failure of the Bill to pass. In this connection it might be well to repeat, that The Workmen's Compensation Act was set up in the interest of the injured workmen and any advantages accruing to the profession through the operation of the Act, and they have been many, were incidental to it and should have been appreciated by the profession.

Indeed, it is unfortunate that the significance of the Workmen's Compensation Act was not better understood by the profession and the opportunities more highly appreciated. When it is recalled that 44 states have such laws and that 48,000,000 persons are employed, when industry is active, the enormous possibilities for medical and surgical service cannot fail to impress us. Under the present unsatisfactory method of carrying on this work, it is still of immense advantage to the profession in providing work which may be done under the most satisfactory conditions—hospitalization when necessary, with all the help and conveniences which that implies, and the assurance, in most instances, at least, of payment for the attention given. As proof of this statement, may be offered the fact that in New Jersey last year fully \$1,000,000 was paid to physicians through the workings of this law, and in New York State \$8,000,000. And that this represents but a small part of the possible returns to the profession, is proved

by the fact that throughout the country, partly because of dissatisfaction with the services and partly to lessen the burdens which employers have found to be very heavy, hospitals and clinics have been equipped and manned by surgeons in the employ of industry—to whom last year \$54,000,000 were paid which might have found its way into the pockets of the rank and file of the profession. For an enlightening account of the possibilities of industrial medicine, see McCord's article in the *Journal of the American Medical Association*, April 9, 1932.⁽¹⁾

Probably the greatest satisfaction, and certainly the greatest profit, comes to the State Society from the Post-Graduate Extension work, which has been received with a steadily increasing interest and favor each year. It will not be necessary to remind you of the general acceptance of this opportunity to learn modern scientific medicine and surgery from qualified teachers, nor to visualize the marvelous benefits that will accrue to the profession and to the public. The fact will soon become known that knowledge of the management of many diseases formerly calling for highly trained, special medical services is now being acquired by the general practitioner and given direct to the patient without the increased expense of intervening specialists. This has placed the Medical Society of New Jersey in the lead in educating its members in up-to-date, scientific medicine, and it will raise the standing of the profession in the estimation of the public and tend to prevent the passage of legislation prejudicial to their interests. Appreciation of the desire of the profession for such knowledge, and of the benefits that are obtained, may result in wider distribution, so that physicians in smaller communities may profit thereby without having to leave their field of work. Quoting Dr. Ross: "The development of medical science is so phenomenal and the evolution in medical treatment so great that it warrants any effort that will make available means of keeping the standards of practice up to date."

Reference has already been made to a plan for *the control of specialism*. You will recall that such a plan was introduced at the last Annual Meeting by Dr. Waters. This has

been given very earnest consideration by a sub-committee of the Welfare Committee, which has received valuable help from the Executive Secretary and a large committee assigned to study it. All have worked in the heartiest spirit to evolve a plan which would, without involving the Society in legal complications or unpleasant controversies, place an effective check upon improper assumption of the right to practice specialism, and aid the public by endorsing those who the Society felt were qualified to be regarded as specialists. It cannot be too strongly insisted upon that *the rights* of the general practitioner, who may at the same time be interested in a particular line of work, *will not be interfered with*; that there is no intention of making the endorsement of the Society difficult of attainment, and thus setting a premium on specialism; but, to have our own Society secure the credit for taking the initiative in correcting, what is admitted by all, unsatisfactory conditions in the practice of the specialties. Only recently, Dr. Judd said: "The American Medical Association, coöperating with other associations interested in this problem, should endeavor to indicate who is entitled to designate himself as a specialist." It is not claimed that the plan to be submitted is perfect. Experience will probably show ways of improving it, but it is workable and we are pleased that the Society has seen the wisdom of endorsing it.

There are other matters that concern intimately the interests of the welfare of medical men, to which a brief reference, at least, should be made. I refer to the rise and growth of industrial medicine, to contract practice, to the care of the sick poor, and to health insurance; and also to preventive medicine, the multiplication of social agencies, and the increased activities of health boards, local, state and national. To the solution of these problems, which have had a decided effect upon medical practice in recent years, circumscribing the field of medical endeavor and curtailing the revenues to be derived therefrom, the time and thought of the best minds in the profession have been devoted. And while impossible to deal adequately with such problems, in an address of this kind, I have

been much impressed with the conclusions of Rappelye (referring to health insurance, etc.⁽²⁾) that: "Any plan, whether developed from within the profession or imposed upon it from without, that lessens the responsibility of the trained physician in the care and treatment of patients or denies him the rewards of individual efforts or superior ability, will, in the long run, be detrimental to the public welfare." The other problems—preventive medicine and socialization of medicine—are equally difficult to deal with because they are the results of progress in medical science, consequent upon discovery of the cause of disease and of methods of prevention and cure. Those of us who have been privileged to practice for a generation or more in time, can best realize what changes have occurred and what blessings have resulted from these beneficent discoveries. This has been the glory and the boast of modern scientific medicine and concerning all of this the honest and sincere physician can do naught but rejoice. Time will determine whether the individualistic practice of medicine, according to Fishbein,⁽³⁾ must be supplemented by forms of organized medical care on terms that are economically easy of attainment, or whether for the good of the public and the practice of medicine we should wait until sufficient study has been given to assure the retainment of those factors which have brought modern medicine to its present state.

With this hurried review of the aims and accomplishments of the Society during the year, I desire to express my sincerest thanks to the Executive and the Recording Secretaries for their unfailing kindness and helpful coöperation. By their knowledge, gained from several years' experience, they have greatly lightened for me what might have been a heavy burden. For the education acquired, the friendships formed, and the anticipated satisfaction in the years to come, of having presided over the destinies of this venerable Society, I again return heartfelt thanks.

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- (1) McCord: *Journal A. M. A.*, April 19, 1932.
- (2) Rappelye, New Haven; *Problems of Medical Service*.
- (3) Fishbein: *Journal A. M. A.*, June 11, 1932.

SOME FACTORS IN STATE MEDICINE*

H. SHERIDAN BAKETEL, A.M., M.D.,
Professor Emeritus of Preventive Medicine and
Hygiene, The Long Island College of Medicine,
Jersey City, N. J.

State Medicine has some of the earmarks of a bugaboo. There are those who would have it hang over the collective neck of the medical profession like the sword of Damocles. It has even assumed, on occasion, the aspects of an ogre, and doctors have been told that: "State Medicine will catch them if they do not watch out."

The unrest, which is observable to even the most casual looker-on, may be ascribed to a variety of causes. The general public is better educated today than in former years, and has therefore absorbed many of the tenets of preventive medicine which have been, and are being, taught by the medical profession. The people now realize the physical as well as the economic value of good health.

I can see also the metamorphosis of the medical man, as a cause for some of the present day disturbance. Formerly his field embraced all of medicine. As the family physician, he was physician, surgeon, accoucheur, and general specialist. Then specialism made its appearance, as was necessary for the proper care of the individual. But specialism ran riot. At one time we had general surgeons; then there appeared men who confined their work to thoracic surgery, to abdominal surgery, to surgery of the head, to surgery of the various parts, and we even know men whose surgical field is limited to the gall-bladder. While this undoubtedly made for better surgical attention, it increased the cost of operative procedures, and confused not only the laity but members of the profession itself.

It is not essential to go into the many definite causes which have brought about the somewhat chaotic conditions of which the medical man, as well as the public, complains

* (Delivered before the Hudson County Medical Society, Jersey City, N. J., April 23, 1932, and the Middlesex County Medical Society, New Brunswick, N. J., May 25, 1932.)

today. We are confronted by facts, and we need not for the moment concern ourselves with theories. The enlightened laity of this year of grace insists upon service of a superior type. No longer can the doctor impress his clientèle through the medium of a frock coat, the declamation of Latin phrases, or the assumption of ponderous mannerisms. Laymen regard the doctor as a man who has been set aside for a particular and fine type of work, but insist that his work shall be so conducted that it will eventuate in what they believe to be the most satisfactory results in as short a space of time as is humanly possible.

It is essential that doctors should demonstrate to their prospective patients that they practice a profession which is an admixture of science, idealism, sincerity and tolerance, and that their great object is to render honest, intelligent and efficient service.

One of the most outstanding necessities, as I see it, is a return to that delightful and confidential relationship which formerly existed between physician and patient, when the doctor was the friend, counsellor, and "father-confessor" of those under his professional care. No longer can he regard a patient as an *abstract case* in which he has no interest other than one strictly medical. Every patient must be looked upon as a *concrete entity*, as a definite human being whose interests he is striving most earnestly to conserve. *Unless the doctor becomes eloquently and actually human, in his patient contacts, and corrects some of the other errors which have crept into modern practice, state medicine may soon become a reality.*

No less an authority than Dr. S. M. White, President of the American College of Physicians, told the College last March that the public must receive adequate medical service at reasonable cost. If steps in this direction are not taken by the profession itself, they will be taken by politicians; and to the detriment of both the people and the physicians. Dr. White declared that *state medicine*, sponsored by legislation, is absolutely undesirable. *He believes that the doctors can organize so thoroughly as to give the people what they desire.*

We need more clear thinking, and more

real, unselfish leadership. The God-given faculty of thinking, is a talent altogether too rarely exercised—both in and outside the medical profession's ranks. Men unconsciously permit others to think for them. They form their opinions from editorials in the newspapers, and from radio speeches, and then delude themselves into the belief that the expressions read and heard are actually their own.

What this country needs is not, as Tom Marshall said, "a good 5-cent cigar", but the ability to exercise our thinking powers as the Lord intended. Perchance we require more education. President Robert M. Hutchins, in his annual Presidential Address at the University of Chicago, in 1931, said: "The purpose of higher education is to unsettle the minds of young men, to widen their horizon, to inflame their intellects, and to teach them to think—to think straight, if possible—but always to think for themselves."

If medical men would be independent, if they would utilize their own brain power and not act like sheep, blindly following any person temporarily in power, they could form very definite individual opinions which might be ironed out, in conclave, into a concrete plan for the benefit of the majority.

I believe, absolutely and firmly, in organized medicine, and for years have been advocating the doing of things for ourselves. Physicians alone can work out the physician's problems. They are the captains of their own souls.

Does the profession in America aspire to *state medicine*? I have yet to hear one single doctor answer in the affirmative.

It is only necessary to talk with physicians and laymen abroad to realize that *state medicine*, as practiced in many foreign countries today, is far from satisfactory. European doctors regard the state physicians as medical automatons, without minds, thoughts, or initiative of their own. Altogether too many of the laity feel that the service they get under such conditions is niggardly, unintelligent, and sometimes valueless.

Dr. Reik, the eminent Editor of our own splendid State Society Journal, wrote a series of most illuminating articles on "state medi-

cine abroad" last year. For a careful understanding of his observations I refer you to the file of the Journal.

What is *state medicine*? Dr. William Gerry Morgan, of Washington, in his Presidential Address to the American Medical Association in 1930, defined it as "any form of medical treatment provided, conducted, controlled, or subsidized by the federal or any state or municipal government, except such service as is provided by the Army, Navy, Public Health Service, etc."

Laymen who advocate *state medicine*, say: (1) That there is too much unnecessary illness. (2) That the prevention and cure of illness has not kept up with the modern advancement in medical science. (3) That medical service in its present form is not adapted to public needs; leaving too much room for quackery, and putting too heavy an illness-burden on people of moderate means.

Those who oppose *state medicine*, from the patient's standpoint, regard it as unsatisfactory, because: (1) The relation between patient and doctor is one of the most intimate of all human relationships. (2) The patient prefers to select his own physician, and to feel that the doctor is personally interested in him; and this is impossible when medical service takes the form of factory production. (3) A long acquaintance with the individual, and physiologic characteristics of the patient is absolutely necessary if the doctor is to render his best service. *State medicine*, automatically and inevitably, makes the doctor's service to the patient more cursory and slipshod.

Experience has taught those nations which have experimented with *state medicine* these lessons: (1) They find that the public soon becomes dissatisfied, and that a considerable proportion of public patients return to private physicians, leaving the government supporting an expensive system, employed largely by hypochondriacal cranks and malingerers. (2) They find that there is more illness, instead of less, as people do not recover as quickly, and develop complaints quite unknown to them until *state medicine* came into force. (3) The government finds itself faced with the necessity of admitting a failure, or of continuing

with something which is obviously a white elephant.

Physicians do not want *state medicine* because: (1) They realize only too well the difficulty of treating patients satisfactorily on an impersonal basis. (2) *State medicine* kills the physician's spirit of individuality, which is most necessary if he is to become deeply and personally interested in the patient and his troubles. (3) The rate of compensation allowed by a system of *state medicine* does not reimburse the physician for the expense of medical training necessary for effective medical service, and permit of proper standards of living for his family.

On these, and possibly other grounds, the overwhelming majority of physicians in the United States are strongly opposed to state medicine.

How about the cost of *state medicine*?

(1) The German government's Sickness Insurance Fund, for 1930, showed a deficit of 200,000,000 marks.

(2) German experts have estimated that more than 18,000,000,000 gold marks must be raised immediately if the Sickness Insurance System is to be placed on a sound financial basis.

Some other interesting facts which indicate the weakness of *state medicine* as practiced in Germany, are:

(1) Patients appear to become morbidly interested in their illness, and lack the will to recover. For example, a German doctor states that he became ill and entered a hospital for treatment. He and 6 other persons were the only private patients, the remaining 200 patients being "insurance cases". In 11 days, all the paying persons had been discharged from the hospital as recovered; while the insured persons had been receiving necessary treatment and great consideration, but showed little improvement, and they continued to stay at the hospital at the expense of the government.

(2) One eminent German practitioner, who treats both private and insurance patients, stated that he gave identical treatment to 2 groups of patients, all suffering from gastroduodenal ulcer. One group was private, the other insured. The private group mem-

bers progressed far more rapidly. One patient changed over to an insured basis during treatment, and immediately became transformed to a no-improvement case. Every type of treatment was employed but the results were invariably unsatisfactory. The fact that the insured patients were receiving free board and were not compelled to work seemed to have a demoralizing effect.

Colossal sums of money have been poured into the German insurance system, and now there is talk of abandoning it as a failure.

The National Health Insurance Act of Great Britain pays in *disablement benefits alone* a total of \$100,000,000 a year, which is taken from the Public Exchequer. An even greater amount is drawn out of the treasury for medical care and hospitalization of insured patients.

Some idea of the troubles the British government made for itself in the National Insurance Act may be gained from the history of the capitation fee—the fee paid the doctor for treating a panel patient. In the beginning the amount was set at 11 shillings, with something extra for mileage in rural and semi-rural areas. In 1922, the capitation fee was reduced from 11 shillings to 9 shillings sixpence. Two years later the government offered 8 shillings. The offer was refused and 90% of the panel physicians handed in their resignations. The government immediately raised the offer sixpence. Finally, an independent court of inquiry set the capitation fee at 9 shillings. When I left England last November it was planned to drop the fee another shilling. The doctors are not satisfied, the patients are enjoying the luxury of chronic minor illnesses, and the government is doing the financial worrying.*

In England, annual sickness benefit claims rose from 41% of all panel patients in 1921, to 159% in 1927. In 1929, 410,903 persons were referred to special regional offices as chronic malingerers. Of this enormous number, 5/6 were found to be receiving benefits on feigned illness but, under the insurance scheme, there was nothing for the individual

panel practitioner to do but continue to treat their complaints. As a physician-member of Parliament said: "The people are being converted into loafers and hypochondriacs."

In Germany more than 1,000,000 patients were investigated by special medical officers in 1 year, and 56% were found to be malingering. In a certain factory in Germany, 50 women were discharged for economic reasons. The next day 49 of those women had medical certificates of illness, and immediately began receiving disability benefits. A group of hospitals in Sheffield, England, working under the insurance plan, found that it cost £29,000 to treat insured patients during 1 year. The total amount received from insurance funds for the same period was £4300.

Some writers have compared *state medicine* to the present efficient service of the Medical Corps of the United States Army and Navy. They direct attention to the fact that members of Congress have voted themselves the privilege of free treatment in government institutions. There is no doubt that this service is superior, but one investigator has made a conservative estimate that the cost of this service to the government is \$100 a day per patient. If members of Congress were presented a personal bill for the full cost of their care in government institutions, they would seek medical care elsewhere.

The United States Veterans' Bureau is *state medicine* on a small scale. The cost of medical service and hospitalization for War Veterans, for the present year alone, amounts to more than \$112,000,000 and it is estimated that the cost next year will be at least \$5,000,000 greater.

It has been my endeavor to present this picture of *state medicine* from the standpoint of the public and of the government—rather than from the selfish standpoint of the medical practitioner whose real interest, after all, is to see that the people receive adequate medical service.

But we cannot disregard entirely the effect of *state medicine* upon ourselves. Let us quote an eminent physician of Danzig, Germany, Dr. Erwin Liek, who represents German medical sentiment: "While the patient may select his own doctor, how about the physician him-

*(Vide, London letter, "Financial Difficulties of Medical Socialism, Jour. A. M. A., 98:26:2298, June 25, 1932.)

self? What has he to say in the selection of his patients? He must necessarily accept all who come to him. The private physician need only accept those whose aims harmonize with his. There is an inner sense of joy that pervades his whole work. * * * The insurance physician is a bureaucrat. The experience of the medical profession with this system has been unfortunate throughout, and this applies to socialization of medicine in Russia as well as in Germany. We have experienced a total demoralization of the ranks of the medical profession. * * * A house with a weak foundation cannot stand, irrespective of the care that may be spent on the superstructure."

There is nothing new about *state medicine*, because so long ago as 1883, compulsory sickness insurance was launched in Germany, and this system, known as *Krankenkassen*, has since been taken up by Russia, Austria, Norway, Belgium, Holland, Denmark, Bulgaria, and 16 other European countries. In Germany, all persons earning less than \$900 a year become members of the organization, and a tax of 6% on the worker's wages is imposed; of which the employee pays 4%, and the employer 2%, and this entitles the man and his family to medical and dental treatment, inexpensive drugs, eye-glasses, trusses, and other minor medical requirements. Except in great emergency, before the worker can consult the doctor he must procure a *sickness slip* costing 12 cents. If hospitalization is necessary, he can remain in the hospital as long as 26 weeks, and the *Krankenkasse* pays his expenses. Immediate members of his family are entitled to 3 weeks of hospital care, the organization paying $\frac{3}{4}$ and the worker $\frac{1}{4}$ of the cost.

The patient selects his own doctor, and must stay with him for at least 3 months; after which he can change. More than 38,000 out of 47,000 physicians receive their income from the sickness societies. Each medical man has 1000 patients under his care. Physicians are privileged to operate in any open hospital, of which there are many. They are paid by the hospital, and the hospital indirectly by the *Krankenkasse*. The usual fee for a tonsillectomy is \$1.25; for an appendectomy \$5; and for other major abdominal operations from

\$5 to \$10. The fee for each office consultation not lasting more than 5 minutes is 22 cents; for a house visit, 44 cents; a night call, 88 cents. Supplies are furnished to the doctor by the *Krankenkasse*. Instead of charging the patient for individual visits and consultations, the doctor can treat him for a period of 3 months for a stipulated sum of \$1.18 per patient. The *Krankenkasse* does not pay fees direct to the doctors. The so-called Doctor's Union is deputized to look over the quarterly checks and, if found satisfactory, to honor them. These checks include the sickness slips with reports of the patients' illnesses and the kind of treatment given, and they are presented to the *Krankenkasse*, every 3 months, for payment. All general practitioners are, therefore, on an equal financial basis. The average annual pay is 6000 marks (\$1380), though many do not earn over 1000 marks. Specialists have larger incomes, but to be a specialist, and be admitted as such to the *Krankenkasse*, one must have a special, intensive training of from 3 to 4 years.

E. L. Hergert, of Brooklyn (*Medical Journal and Record*, April 6, 1932), says that as only from 2 to 5 minutes are devoted to each patient, it is easy to imagine the value of the service received by the patient. The sole interest of many of the physicians is to see as many patients as possible in a day so as to present a large number of sickness slips every quarter. Hergert says that "the inducement to carry on such an unsatisfactory practice, and the temptation to place malingering workers on the sick list upon the slightest pretext; the predisposition to bribery and the seeking of political favors, have transformed many unprincipled doctors into cheap politicians, grafters, and dishonest practitioners". Hergert observed further that the *Krankenkasse* doctors are left practically no time for reading, post-graduate work, or for attending medical society meetings, and that their ambition is deadened. He is of the opinion that compulsory sickness insurance has failed to solve the economic problems of the profession in Germany, and in other countries, and he believes that such a system would be impractical in the United States, because Americans will not pay a certain percentage of their wages for health

insurance, nor will they consult a doctor not to their liking.

Let us turn to Russia, where 160,000,000 people, speaking more than 160 languages, are absolutely under *state medicine*; there being little or no private practice. Productive labor is held in the highest esteem in the Soviet; mental workers are decidedly *déclassé*. Dr. Joseph E. G. Waddington, of Detroit, writing in the *American Journal of Physical Therapy*, says that in Russia the physician stands on the lowest rung of the social and economic ladder: "He may receive an average monthly wage of \$60 to \$75 for which he works 6 hours a day. He is a servant of the Government, and is entitled to fewer privileges than a factory worker. According to the class of work and its remuneration, does the worker pay for all necessities and those are rigidly rendered and only procurable by cards. The laborer and his family pay less for everything than does the physician, lawyer, government employee, or shop clerk. The proletariat also has first choice for vacations, admissions to sanatoriums, and hospitals. Their children are given preference in admission to the over-crowded schools and universities."

The Commissariat of Health is in absolute control of the medical situation in Russia, both as to prevention and cure of disease, and it works through, or in coöperation with, the All Russian Medical Workers Union. The Russian Medical Association fought *state medicine*, and resisted affiliation with the Union for several years, but was finally forced by legal procedure to surrender. The purpose of the Soviet—actual socialization of medicine—has been accomplished. The state provides free medical treatment for every one, and it is the function of the authorities to eliminate all commercial private practice.

Great Britain adopted a National Health Insurance act in 1911, and at the present time 17,000,000 people, whose individual yearly wage amounts to not more than £250 (less than \$950 at present exchange), are included within its scope. Of the fund for this insurance, 4/9 is contributed by the employer, 3/9 by the insured, and 2/9 by the nation. The benefits include treatment, with a certain amount of medicines and surgical dressings.

Periodic payments are made for an illness lasting not over 26 weeks, but if further incapacitated for work, the insured receives disablement benefit. Every qualified practitioner can, by expressing the desire, be put on the medical list, or, as it is more commonly known, "The Panel". The physician must keep accurate records; the "paper work" causing a great deal of trouble to the panel physicians. The worker is registered with an insurance company and receives a card of identity, which he takes to the physician of his choice, and thereby becomes a member of that doctor's panel. He has the opportunity of changing physicians, if he so elects. The maximum number of insured persons on a panel is 2500. If the doctor has an assistant he may have up to 4000 persons, and 5000 if he has a partner.

When looking into this question last Fall, in London, I was told that the doctors are receiving a little more than \$1.50 at present exchange, per annum per patient. The last published report of the Ministry of Health showed 14,000 doctors on the panel, out of 24,000 general practitioners on the Register, and they received, in 1929, \$31,250,000 for attendance upon something over 14,000,000 people, or an average of \$2232 for each panel physician. The treasury reported that \$1,000,000 had been paid to country doctors for extra mileage, and another \$1,000,000 for medicines and appliances supplied in emergency.

The passage of the National Insurance Act was fought by the medical profession, as it was felt this act would prove detrimental to the public and degrading to the physicians. The act went through, however, and while there has been more or less complaint on the part of both physicians and the public, my own investigations do not lead me to believe that either the insured or the panel doctors desire any striking change. There is the usual complaint that insufficient time for examination does not enable the doctor to give the patient his best services. As a man with 2500, sees from 40 to 50 patients daily, this is undoubtedly true. In one large panel handled by 4 partners, 84 patients were seen in 3 hours. Partnerships in medicine, in Britain, are as common as partnerships in law in this country.

One physician with a panel of 2000 told

me that in a recent influenza epidemic he was expected to call on more than 200 sick patients a day, and that although he had an assistant, he was driven beyond human endurance. From all I could see and hear, however, panel doctors give their patients conscientious and fairly satisfactory attention. Practically every panel man I interviewed had also a private practice, even though it might be very sketchy. Indeed, I saw a few men with less than 25 on their panel, while others had the maximum allowed.

Some panelites told me they were not permitted sufficient initiative, because they could not prescribe many products which they believed were demanded. Others felt the irksomeness of restrictions imposed by the supervising committees, but the majority said that the money was sure, even though very small in amount.

I asked many important medical men, who have never had a panel practice, as to their opinions. Most of them felt that the poor people were receiving better attention than they did under the old régime, that is, insofar as the ordinary conditions of illness are concerned. From the economic standpoint they believe the panel is a Godsend to the younger practitioners, as it gives them a fixed stipend each year, and is a means of allowing them to establish a private practice.

It is worthy of notice that last year the British Medical Association proposed to the government to extend this national health insurance act to embrace practically the entire populace, and to cover the entire field of the practice of medicine, both preventive and curative, hospitalization, treatment by specialists, and auxiliary service in the various therapies. They planned to coördinate with Public Health Departments, and to take in the welfare of infants and school inspection. The Association's thought was that private practice would not be eliminated, and that physicians would not be compelled to enter the employ of the State, but that all would be eligible if it seemed advantageous.

The Association summarized its ideas in these words: "The system of medical practice which the Ministry of Health should seek to establish, is one which would give to all

who need it every kind of treatment necessary for the cure or alleviation of disease, and would utilize for this purpose every class of medical practitioner."

Notwithstanding all this, I did not meet one thinking physician who thought the plan would work out satisfactorily in the United States.

Let us return to the Continent. When Holland, in 1930, became 1 of the group of 24 nations to provide compulsory insurance to wage earners, it set as benefactors those who earn \$1080 as married persons, or \$720 as single persons. The Dutch doctors immediately organized themselves into "Association Funds", which is their name for health insurance companies. These bodies are eligible to treat all insured persons, and to be paid regular rates therefor.

The Scandinavian countries also have compulsory insurance, the plan in Denmark being regarded as superior. It joins health insurance and old age pensions.

Belgium, in 1930, broadened the scope of compulsory health insurance, and is working along the lines proposed by the British Medical Association.

France adopted social insurance in 1885, but it only came to prominent attention when Alsace and Lorraine, at the end of the War, adopted a complete health insurance system on the model of Germany's. In 1928 the remainder of France was offered similar facilities, but a German model was so repulsive to the French mind that the government was compelled to suspend operation of the plan, and not until 1930 did a new law go into effect. Meantime, the doctors, who were entirely unprepared to cope with the situation in 1928, effectively combined, and the London *Lancet* says (September 26, 1931): "So powerful was their threat of noncoöperation that every one of their demands was granted and the resulting scheme may fairly be called a system of health insurance after the doctor's own heart." The physicians are grouped in local bodies known as *syndicats*, and they are joined in a national organization of 17,000 members. Dentists and pharmacists supported the doctors, and each of the 3 organizations formulated a program for its own particular

department. The doctors announced that they were determined that insured patients should have the same service as private patients, and that they would never divide practice into groups—insurance and private. The slogan of the profession has been—"A private practice relationship for all insured persons." The patient is assured free choice of doctor, dentist, pharmacist, midwife, masseur, etc. There is direct payment of all fees by the patient to the doctor at the time of consultation, and reimbursement to the patient later at the office of his society. And further, there is purely medical control of medical matters.

Insurance in France is compulsory for all wage earners under the age of 60 years whose total income is not more than \$600; although in towns of 200,000 or more, it is increased to \$720. There is also an allowance for dependent children. Insured and employer make equal contributions, and the State provides a subsidy of nearly \$22,000,000 a year, and in addition guarantees old age pensions. At present there is only the sickness and maternity insurance in effect, but later on France plans to add disability and death benefits. The French scheme has been in working order too short a time to form any opinion thereon. We know, however, that it preserves individualism in a collective movement, and in theory puts the poor person on an equality with the rich. One particular criticism is the amount of paper work and red tape imposed on the insured.

State medicine, as such, is little known in the Western Hemisphere. The Republic of Chile is the only country in South America which has a compulsory health insurance law, although the matter is under review in the Argentine and Brazil. Canada is alone in giving serious consideration to the subject. The provinces most interested are British Columbia, Saskatchewan, Alberta, and Ontario. Indeed, in Saskatchewan and Alberta certain steps have been taken in the direction of *state medicine*; in that municipal hospitals, municipal physicians, and traveling clinics have been provided. In Ontario, according to McPhedran, of Toronto (Canadian Medical Association Journal, October, 1931), the practice of medicine is carried out by 2 bodies: Public

Health Service, dealing with matters pertaining to the welfare of the public generally, especially in preventive medicine; and the medical practitioners who are concerned with the health of the individual through private practice, contract practice, or the Workmen's Compensation Act. He says that profession and public are finding the plan in operation not entirely satisfactory, and suggests an alternative plan for continuing the present system, supplemented by provincial aid in certain directions, and by additional activities on the part of the profession, the latter to include post-graduate courses at least every 5 years, and ways and means for collecting and financing doctor's accounts.

What is the situation in the United States? Bills for furnishing complete medical service to the people of Massachusetts have been before the great and general court of that state for several years. New York has had a bill in its legislature covering the entire field of health insurance, unemployment insurance, and old age pensions.

Dr. William H. Ross, late President of the Medical Society of the State of New York, in an editorial, said: "The day of isolation in medicine is over. Medicine must soon undertake a self-appraisal of its own organizations are such as to enable it to make proposals for the solution of unsolved and unmet public medical service problems—chiefly the availability of medical knowledge for limiting illness, and provision for adequate medical care at a cost that can be met without involving the individual in debt from which he can hardly ever recover. It is the obligation of medicine to provide methods for these things, and also to work out a solution as to how the doctor may be paid for his services to the indigent, or near indigent, either in private practice, or in hospitals. * * * We may be nearer than we know to such things as unlimited old age pension, provision for adequate medical care by the state, and the inclusion of sickness benefits in Workmen's Compensation and Health Insurance laws, as in other countries."

No less an authority than the Editor of our own State Society Journal, writing less than

a year ago, stated that on his desk there were 28 original articles which had appeared in similar state journals between May and October, 1930, all dealing with the question of prospective *state medicine*. Dr. Reik observed that the men who wrote those articles have no axes to grind, were neither "reds" nor paid writers, but were men of prominence in the profession, including 3 former Presidents of the American Medical Association, and 7 Presidents of State Societies, representing all sections from Maine to California.

President Harper, of the Wisconsin State Society, said: "Is it wise for the medical profession to remain indifferent to the problem while these agents are developing certain lines of activity, or would it not be far better for the medical profession to appreciate the evolution that is now taking place and become a prominent factor in guiding these various lines of procedure?"

We are hoping for much light from the findings of the Committee on the Cost of Medical Care, which has for some time been devoting its efforts to the subject.

The medical profession, if wisely guided by the advice of unselfish thinkers, can solve the problems now confronting it. Greed, self-interest and ambition must play no part therein. It is safe to say that American physicians, and the intelligent American laymen, who have given heed to the matter in hand, do not want *state medicine*. They prefer to have broad-minded medical men formulate a plan which will best serve the interests of the great majority and which will elevate the practice of medicine to a high and lofty plane, that its devotees may the better live lives of professional service to mankind.

MEDICOLEGAL ASPECTS OF DISEASE AGGRAVATED BY TRAUMA

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Since the advent of the Workmen's Compensation Law, some 20 years ago, trauma has received the serious consideration of both

our professions—medical and legal. Industrial medicine and traumatic surgery are destined to occupy a very prominent place in the practice of medicine, as is evidenced by the American Medical Association and American College of Surgeons, both, having organized special committees for study of the various phases of trauma, and for standardization of treatment. An extensive literature has already arisen on simply the immediate results of trauma. The direct effects of contusions and lacerations, strains and sprains, burns and scalds, fractures and luxations, have been given prominence and voluminous description; but, the remote indirect effects of trauma, less apparent and striking, are just as grave in their consequences and require equally serious consideration.

In the state of New Jersey, as in the majority of jurisdictions, the basis of awards for permanent disability is the extent of the future industrial incapacity. Pain—no matter how severe; suffering—no matter how intense; disfigurement—no matter how ugly; *per se*, do not enter into the computation, yet the modern tendency toward liberal interpretation of the statutes, and toward giving them their broadest meaning, includes all possible elements constituting disability, provided the causal relationship to the trauma can be proved with a reasonable degree of certainty. Fortunately, for the injured, the law provides that so long as the accidental injury contributes as a causative factor in the condition of incapacity, the employer is held liable for the full results of incapacity to work.

"The existence of a disease which does not impair the employee's ability to work will not prevent a recovery of compensation if an accident accelerates the disease to a degree of disability. The actual aggravation of an existing infirmity caused by accident in the course of employment is compensable even though the accident would have caused no injury to a normal person. * * * It is the law that if a man who is already afflicted with an infirmity is injured by an accident and thereby incapacitated from carrying on the work which he was previously fitted to do, then that is an injury which results from the accident even

though the accident would not have incapacitated him had he been otherwise sound."

The tendency of disease to take advantage of lowered resistance, either local or general, is manifest in the aggravation of systemic disease by superimposed trauma. This trauma need not necessarily be in the nature of physical violence, since shock, mental strain and psychic depression have been proved to similarly affect the preëxistent malady. This is believed to be brought about by reducing the resisting powers and producing changes in the constitution of the patient.

GENERAL CONSIDERATIONS

(1) *Presence of preëxisting disease.* Obviously, in discussing this subject, we assume that the individual is below par in that, somewhere in his system, there exists a "locus minoris resistentiae" in the form of a latent or quiescent lesion. When injury is implanted on top of this lesion, an aggravated disability results.

(2) *Time.* What period of time elapsed between the injury and the diagnosis, and was that period covered by "bridge" symptoms? By this, we mean that when the interval is long there is a continuous chain of symptoms between the trauma and disease which develops later, such as pain, fever, emaciation, cough, arthritis, etc.

(3) *Nature of trauma.* Generally, the injury must be of sufficient severity to devitalize tissue or, at least, cause pain and suffering sufficient to affect the natural powers of resistance. As a rule, in tuberculosis it is the mild chest injury that re-activates a latent lesion.

(4) *Location of trauma.* Usually, the trauma is at the site of the aggravated lesion. However, the lesion may be distal to the site of disease provided it is of sufficient severity to cause shock, pain or interference with function.

PULMONARY TUBERCULOSIS

Most authors and clinicians are in accord regarding the influence of trauma in aggravating a preëxisting tuberculosis. So positive are they in their assertions that one of the foremost phthisiologists has stated that "for

medicolegal purposes, active tuberculosis following an injury should be considered a valid cause for claiming damages when an attempt is made to determine the responsibility". (Fishberg).

Considering tuberculosis, 2 factors are necessary for the traumatic development of the disease—tubercle bacilli and trauma. The germs are ever present in man, although it has been established that we are not born with tuberculosis; it is contracted during life, possibly beginning with the first breath or outcry of the new-born. We are all exposed to and acquire the infection from those actively afflicted. Coughing and sneezing play the greatest rôle in spreading the germs.

Recent investigations have shown that tubercle bacilli can be isolated from lung tissue and glands which show no gross evidence of tuberculosis. Furthermore, we know that post-mortem statistics yield evidence of latent or healed tuberculosis in 33 to 97½% of bodies examined, and this might be increased to almost 100% if recourse were had to animal inoculation. Apparently, we all harbor the bacilli, and the difference between injury to the presumably healthy and to the known tuberculous subject practically disappears or becomes a question of degree only. A characteristic observation was made by one of the German writers: "After all, everyone is a little tuberculous."

Modus operandi. The primary tuberculous focus lies dormant and inactive, prevented from spreading by the surrounding, encapsulating membrane and supported by a good general resistance. Any foreign influence tending to interfere with either of the above factors will bring about a breakdown of the quiescent lesion, inaugurate inflammation, begin a mobilization of bacilli, invasion of surrounding tissues and the flaring up of active tuberculosis. Injury to the primary focus may be brought about by:

(1) Blunt violence to the chest wall, causing a laceration of lung tissue or a loosening of the fibrous capsule; the inflammatory process of a traumatic pleurisy might extend to the adjacent lung tissue and produce a similar effect.

(2) The force applied away from the site

of disease by a *contra-coup* mechanism. Post-mortem findings have shown, after severe injuries, that the lung opposite to the side receiving the impact was damaged even to tearing of the healthy lung; similarly, an injury to an extremity can be transmitted directly to the chest and damage the primary focus.

(3) Injury to a point distant from the lung may directly affect the primary focus; in a case of severe burn of the foot, an embolus detached from the sloughing wound found its way into the right lung and caused an infarct with an ultimate breakdown of the entire lung.

INJURY TO NATURAL POWERS OF RESISTANCE

Trauma, with or without shock, will tend to lower the vasomotor tone by a fall in blood pressure, and in other ways lower the body resistance, so as to favor activation of a previously existing disease. Sepsis, continuous pain, insomnia, loss of blood coupled with enforced confinement and poor hygienic surroundings, so debilitate a patient as to favor the lighting-up of a previously latent tuberculosis.

In the case of quiescent lesions activated by traumatism, aggravation of the patient's condition, and extension of the process, may appear soon after the accident, while hemoptysis may appear even immediately. In a case where one observes, only a few days after the trauma, development and signs of phthisis and especially tubercle bacilli in the sputum, it may be concluded that the condition is one of preëxistent disease aggravated by the accident. In the case of an apparently healthy person, with an absence of dramatic symptoms, and who develops the active disease 3 to 6 months or even later, establishment of a claim for aggravation may rest entirely upon slight, but persistent, evidence of ill health which "bridged" the interval between injury and diagnosis.

SYPHILIS

Syphilis is another disease in which trauma may be a causal factor in aggravating or flaring a latent process into activity. Much of the present day importance of the subject is due to our more advanced knowledge, and recognition of the great number of unrecognized

luctics in our industrial communities, and the effect of trauma upon them. The tendency of infectious disease to react to trauma by an exacerbation is also characteristic of lues but is not as dramatic in its manifestation. This is particularly true of hereditary syphilis, or the acquired tertiary type, where the individual was never aware of its existence or had already forgotten its initial presence.

Types of trauma. These may be mild or severe, single or repeated, sudden or prolonged. They may take the form of a blow on the head, wrenched back, sudden exertion of lifting, or a mild contusion over the tibial crest.

Tissues involved. All tissues may be affected—skin, subcutaneous tissue, muscles, ligaments, or bones. The cardiovascular system, with aortitis and aneurysm, and the central nervous system with a gummatous brain, are the most frequent and perplexing. Reaction of the traumatized gumma is immediate in onset, destructive in nature, progressive in its course and invariably disseminates beyond its boundaries. The degenerative process may be slow but definite; and the resulting incapacity overwhelming. Trauma, which passes unnoticed in a healthy individual, may evoke a peculiar response from the tissues of a syphilitic.

Pathology. The local specific lesion, such as a blow on the tibia, produces an immediate osteitis, and a few days later an osteomyelitis which gradually evokes osteoporosis, increased brittleness of bone, and spontaneous fractures. The small dormant nests of spirochetes located near the site of the injury are mobilized and thrown into the circulation.

General syphilitic manifestations, such as tabes and paresis after a head or spine injury in a luetic, are accounted for as follows:

After a concussion of the brain there is a vasodilatation of the brain vessels, due to a paralysis of the vasoconstrictors, with resulting small, multiple, punctate hemorrhages and extravasation. This is especially true in the syphilitic subject because of the increased vascular permeability and resultant fragility of the blood vessel, due to the toxic factor of a prolonged cerebral lues. As a result, the mo-

bilized spirochetes, and a newly created favorable culture medium, combined with a traumatized area of lowered resistance, thrive, multiply, spread and rapidly invade the nervous system.

Landouzy's case was that of an Army officer who, after 25 years of latent syphilis, developed a specific osteitis after a fall from his horse. Klauder obtained positive Wassermann reactions, after trauma, in individuals with previous repeated negative tests.

MALIGNANCY

The question of whether a single trauma is a competent producing cause of malignancy need not be discussed in this paper because we are concerned only with aggravation. What we are interested in is what effect may be expected from trauma on a preëxisting tumor. The possibility that benign tumors may be converted into malignant ones, under the influence of trauma, is remote but probable. Certain types of benign tumors are believed to be more susceptible than others to such a transformation. These include the keratoses, adenomatous tumors, and perhaps the quiescent nevi. It is stated that sarcoma rarely develops in a preëxisting benign tumor, but may occasionally occur in neurofibromatosis and endothelioma. On the other hand, a single trauma to any benign tumor may be productive of chronic irritation sufficient to produce the transformation by way of scar formation over the site of the traumatized tumor.

A preëxisting malignant tumor may be aggravated or accelerated in its growth by trauma. The injured may have never been aware of its existence until the trauma called it to his attention. It is accepted without question by scientific medicine that a reasonably severe trauma, applied directly to a carcinomatous growth, may accelerate its growth, stimulate metastasis and hasten the inevitable end. However, many of the reported cases are merely instances of trauma calling attention to a preëxisting tumor. The frequency of such preëxisting but unrecognized tumors is shown by the fact that the post-mortem examinations disclose a much greater incidence of malignancy than is found in diagnosis on

the living individual, even by the best diagnosticians.

In order to establish a claim for aggravation of malignancy by trauma, the injured must comply with the following postulates (Llewellyn).

(1) The trauma had directly or indirectly provoked hemorrhage into or laceration of the substance of the growth.

(2) The pathologic life history of the growth was such that these contingencies were improbable in the absence of injury.

(3) The question of trauma causing metastasis is difficult to answer but it should be presumed if more rapid growth was a sequence to the injury.

SPINAL ARTHRITIS

The anatomic structure of the spine, the physiologic relation of the resistance of the supporting tissue, and the demands due to load and movements, are such that it can withstand a sudden jolt or pull without consequence. However, frequently a relatively minor accident, such as a twist or fall that would not affect a normal spine, produces disabilities of such varying degree, duration and intensity, that the trauma itself cannot possibly account for the severity of the resulting incapacity. This discrepancy between a mild trauma and severe complaints may lead the careless or prejudiced observer to a diagnosis of "compensationitis" and a charge of malingering. However, a careful roentgenologic study of the spine of the claimant with back injuries often reveals the fact that these people have old osteo-arthritic changes in one or more vertebral joints. That these conditions are old is evidenced by the fact that arthritic and bony changes must be quite advanced to be demonstrable through the heavy body tissues. When radiographs are taken immediately or shortly after the injury the chronicity or the preëxistence of the morbid condition is evident in the spine. Undoubtedly, there existed an acute inflammation of the spine, which subsided, settled down and became quiescent without even producing pain, disability or discomfort. The primary cause may date back to some infection or disease during childhood or adolescence, and may have been entirely

forgotten. In this manner a great many disabilities, reported by attending physicians to be caused by rheumatism, sciatica, neuritis, lumbago, strain and sprain, are nothing more than a flaring up of a latent spinal arthritis in response to a relatively mild trauma.

A clear and concise summation is given by Dr. Walter G. Stern: "If the claimant has been able to carry on the duties of his former occupation before the alleged injury; if the record of employment or the wage-sheet does not show that he had to lay off frequently on account of backache or other disability that might be referable to arthritis; if the symptoms followed the injury in the manner alleged in his history; if the disability was such as is shown in the history and the statement of facts that usually accompany the patient, (and if I find arthritis); then, the present disability, in my mind, is caused by a pre-existing symptomless and non-disabling condition, made painful and disabling by the accident complained of."

GASTRO-INTESTINAL DISEASE

We have already considered malignancy and syphilis. Direct trauma, such as cutting into a tumor on the operating table, or by transmission through the abdominal wall, produces a proliferation of the malignant cells, rapid extension of the morbid process, and hastens the inevitably fatal termination.

Ulcer. Rupture of a gastric or duodenal ulcer, as a result of direct external violence, has occurred so frequently, and the etiology is so self-evident, that we need not discuss it further. The symptoms are immediate and pathognomonic: sudden pain, hematemesis, dyspnea, anxiety or complete collapse, and even sudden death. Sherren states that injury may be the exciting cause leading to the perforation of a gastric or a duodenal ulcer, and that several patients had come under his care, in whom perforation had occurred from lifting a heavy weight. The majority of such patients had shown previous gastric symptoms.

Hernia. By a *hernia* we mean the protrusion of an organ through an opening, congenital or acquired, from the cavity in which it ordinarily lies. When a hernia occurs as a

result of a trauma, it is merely an aggravation of a preëxisting congenital or acquired anatomic defect. Trauma to an existing hernia may lead to serious consequences. Due to a reflex contraction of the abdominal muscles during the contusion of a hernia, the intra-abdominal pressure is increased and a loop of the intestines may be forced through the hernial opening. The symptoms usually resemble a general peritonitis caused by perforation of the intestines. The trauma converts a painless, reducible hernia into one that is irreducible or even strangulated. In the latter case, an immediate operation is imperative to avoid a fatal termination.

Appendicitis. Chronic appendicitis may become acute through trauma. In a healthy appendix, trauma can scarcely cause appendicitis, but in a preëxisting, chronically inflamed, adherent or kinked appendix, trauma might aggravate it further or superimpose an acute exacerbation. In Kelly's series of 50 traumatic appendix cases, 40 (80%) of their number, gave evidence of preëxisting inflammation such as originate in concretions, adhesions or kinking.

Case history. J. B., 14, white, American, foreign parentage, attending public school. Past history negative except for measles at age of 3 and a mild attack of pain in right side associated with vomiting 3 years ago. Friday morning, while ice-skating, he stumbled over an obstruction and fell with his right side against an irregular block of ice. He suffered pain immediately, was taken home by the boys, and vomited profusely for 3 days. His mother and kind neighbors rubbed him with "liniment" and "expeller". Monday morning I was called in a hurry and found him feeble, toxic, the abdomen rigid, exceedingly tender and distended. The temperature was 102°; pulse 136; respirations 32. I sent him to the hospital, where he was operated upon immediately for a ruptured appendix and peritonitis, but he died the same day.

DIABETES

Any severe physical or psychic trauma may, under certain circumstances, aggravate an extant diabetes, or cause the first manifestations of a latent diabetes to appear. Injury to the

abdomen or head, as well as psychic trauma, may cause extra-insular glycosuria by direct or indirect injury to the nervous and endocrine apparatus participating in the carbohydrate metabolism and governing glycopoiesis. Allen points out that "though physical injury is practically excluded as a primary cause, it may aggravate existing diabetes, at least temporarily, and thus, conceivably, make active a latent diabetes, which, without the trauma, might have continued latent for several years or even throughout life".

If there be a question of aggravation of extant diabetes by an accident, the trauma must have been severe and have acted upon a region where anatomy and physiology show the presence of centers of glucose regulation, and the diabetic manifestations must have appeared directly, or developed within a short time, after the accident. If the patient was unaware of the existing latent diabetes, great care must be taken in obtaining his history. Of great significance is a past history of excessive appetite and thirst, pruritus and furunculosis. It is rather advantageous to have the reports of urinalysis before and after the accident.

Case. J. D., white, Italian, laborer, while at work caught his right thumb in a machine press and crushed it. He cried out with pain, collapsed, and remained in comatose state for some time. Prior to this injury he suffered from diabetes, was attended by his family physician, who administered insulin, controlled the diet and reduced the sugar-content of the blood to a fraction of 1%. Following the injury, an unquenchable thirst developed and an analysis of the urine showed 4½% of sugar. At the present time the general symptoms have disappeared, but the urine still shows a comparatively higher sugar content.

Conclusion. We have described the more common occurrences of disease accentuated by trauma. Further instances of the similar processes may be mentioned in connection with the cardiovascular and central nervous systems. Arteriosclerosis, aortitis and aneurysm, predispose an individual to a longer period of disability and render him an easy victim to intercurrent disease. The emotionally unstable individual, with a constitutional inferiority,

suffers from traumatic neurosis, or hysteria, at the slightest traumatic provocation. Suffice it to say that every organ or body tissue may, under favorable circumstances, be adversely affected by trauma.

A ROENTGEN RAY CONSIDERATION OF THE COLON*

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The ultimate completion and elimination of a meal is sometimes far more important than its ingestion. For this, we depend mainly on a well functioning colon.

The colon is morphologically different from any other part of the digestive tract, but is anatomically and physiologically peculiarly well suited for its work. Though only 5 ft. long, it is firmly anchored by the peritoneum on the right and left sides. This differs from the small intestine, with its 22 ft. of length freely moveable in the abdominal cavity. Another characteristic of the large bowel is the absence of *valvular conniventes* and *villi* and its slow but powerful contractions moving at the rate of 1 in. per minute.

The colon has only a few, but those few are important, functions to perform. They consist of: water absorption; cellulose reduction; and, finally, excretion. It is important to remember that food remains in the colon a longer period of time than in the stomach or small intestine. The former requires from 20 to 30 hours to act upon ingested food; whereas, the stomach and small intestine require 4 to 6 hours respectively. The colon also serves as a reservoir in which waste can be held until such time as it is excreted, especially the salts of heavy metals.

It has long been known that the contents of the colon increase in density as the mass advances from the cecum toward the rectum. Under fluoroscopy on a 24 hour plate, one can see, with the help of a contrast meal, how, at the hepatic flexure, the barium meal has

* (Read before the Clinical Society of Newark Beth Israel Hospital, Dec. 3, 1931.)

already formed into rounded masses. Then, with yet more water being extracted from the colonic contents, the residue is pushed by mass movement into the descending colon and thence out by expulsion.

The colon may be compared to a well-balanced scale consisting of the cecum, ascending colon, and $\frac{1}{2}$ the proximal transverse colon on the right; and the distal transverse colon, descending and sigmoid on the left side. Function on the 2 sides is different; that on the right, for water absorption and bacterial digestion; that on the left, for excretion. Any variation in this delicate scale—one way or the other—may produce constipation or diarrhea.

It takes but a few minutes to outline the colon by enema, but before doing so, let us consider the anatomic divisions of the large intestine.

The cecum lies free in the abdominal cavity and enjoys a considerable amount of movement, due, probably, to its long mesenteric attachment. Because of this free mobility, it may become herniated down the right inguinal canal. The ascending colon passes upward from the cecum, opposite the colic valve, to the under surface of the right lobe of the liver; there it is in relation to the gall-bladder and lies in a shallow depression on the under surface of the liver, at which point it bends to the left to form the hepatic flexure. It is covered anteriorly and on both sides by peritoneum.

The transverse colon is the longest and most mobile part of the colon, almost completely invested by peritoneum, and is connected to the inferior border of the pancreas by the transverse mesocolon. Under palpation, and on different postural changes of this part of the colon, large pendulum-like movements, due to intrinsic peristaltic activity, are seen. The splenic flexure is more clearly fixed than any other part of the colon, being in relation with the spleen and tail of the pancreas, and attached, high up, to the left diaphragm by the phrenico-colic ligament at the level of the eleventh rib. That splenic flexure angulation is not so acute as is generally thought, can be proved by turning the patient on his right side, under fluoroscopy after a contrast enema. One often observes a marked

redundancy in the high loops of the splenic flexure where large accumulations of gas may cause real distress by kinking the bowel sharply on itself, thus resulting in valve-like obstructive symptoms. The descending and iliac portions of the colon are usually straight, and surrounded anteriorly and on either side by peritoneum; and the descending colon is more deeply placed and shorter than the ascending.

The sigmoid colon forms a loop within the pelvis about 16 in. long, and is variable in regard to size and shape. It is completely surrounded by peritoneum which forms a mesentery called the "sigmoid meso-colon". Because of this mesentery, the sigmoid is sometimes seen to rise high in the abdomen. The rectum ends at the anus, is about 5 in. long and its upper $\frac{2}{3}$ has a peritoneal covering.

Before the administration of a barium-colon-enema, the patient should be prepared by a cleaning out dose of 2 oz. castor oil. The enema bag should be at a height of 2 ft. above the patient, with enough tubing easily to reach the patient, and have an ordinary bulb syringe attached to supply additional force if required; the tubing should contain no valves, and a small hard rubber rectal tip is best. For accurate diagnosis it is essential that the enema be controlled by fluoroscopic observation, so before starting the injection, the observer's eyes should be well accommodated; for which purpose it is necessary to remain in the dark room for at least 10 minutes, or, until the enema tip can be plainly seen in the rectum.

As the fluid enters, we observe first a gradual filling of the rectum and then the ampulla. This increases in size and assumes a pear-shaped appearance in normal persons. The barium flows gradually into the pelvic colon, which rises high in the abdomen during injection, because of increased pressure. When this phenomenon fails to occur, we immediately become suspicious of adhesions or tumors in this area. We then turn the patient in first oblique, to observe the rectosigmoidal area. From this point onward, the progress of the barium-enema is uninterrupted. A normal retardation of the flow occurs at the splenic flexure. If difficulty in the flow is encountered at this point, we may hasten prog-

ress of the enema by turning the patient on his right side for a few moments. The enema reaching the transverse colon, we often notice a slight filling defect in its mid-portion, but this appears only with the patient in the supine position and is nothing more than the pressure of the colon on the spinal column. Where markedly increased intraabdominal pressure exists, this saddling defect becomes more marked as the enema proceeds to the hepatic flexure, usually encountering no hold-up. However, with adhesions or redundancy at this point, difficulty in filling the hepatic flex-

the injection only, for we should also study the colon immediately after expulsion of the enema. The irritable colon will quickly empty itself; a sluggish colon will empty itself very slowly, if at all. On expulsion, we may observe that any organic lesion, inflammatory or not, will detain the enema above the point of affliction and expel it caudal to the lesion, but to obtain this information, a *prone plate* must be taken after expulsion.

In studying the colon for "motor insufficiency" and stasis, the best method is by barium-colon-enema. Radiographs made in



Atonic colon



After expulsion of enema

Fig. 1—The atonic and sluggish colon with almost complete retention after evacuation

ure may be encountered, and the fluid then proceeds proximally and fills the ascending colon and the cecum. If an ileocecal incompetency exists, the barium enters the ileum and upright, prone, and oblique plates of the colon can then be taken.

When a great amount of redundancy of the colon exists, a greater amount of fluid will be necessary to fill the entire colon. Besides, many physiologic obstacles, perhaps contractions, may have to be overcome by palpation, manipulation, waiting, or turning the patient from side to side.

A study of the colon is not complete with

this manner portray the true condition in the entire colon, from cecum to sigmoid. I shall, therefore, point out various conditions encountered, with an explanation of each as observed in the process of barium-colon-enema examinations, namely: (1) Motor insufficiency with stasis; (2) abnormalities in course or outline of colon; (3) diverticula.

Motor insufficiency with stasis. When a patient with constipation presents himself, it is essential to distinguish between the sluggish, atonic colon, and the weakened, fatigued, spastic colon. In the former, the stimulus to work is absent; in the latter, muscular coördination

is lacking. A patient manifesting symptoms of a sluggish colon complains of digestive disturbances, infrequent, hard, dry stools, and a great deal of abdominal distress. A film taken 72 hr. after ingestion of a barium meal would still show stasis in the ascending and transverse colon sections. A plate, with barium-colon-enema, would show no defects in course or outline of the colon on injection, except for the lack of haustral markings, but another plate, taken after evacuation, would show a major part of the enema retained; which is readily accounted for by the sluggish action of the muscular coats of the colon. It is quite



Irritable colon

Fig. 3—An irritable colon showing spasm, hyper-peristalsis, and colonic hyper-motility

apparent that failure results in digestive tract disturbances; poor appetite, nausea, and vomiting, as well as delay in gastric and intestinal evacuation. However paradoxical it may seem, we rarely see a constipated person with an atonic-looking colon. This type of colon seems to exist in irritative conditions such as "ulcerative colitis" or enteritis. Besides, if we judged the colon by a barium meal and not by enema, most of our so-called atonic colons would disappear.

When constipation comes on late in life, in a person who has previously been normal, the physician must think of some lesion obstruct-

ing the lumen of the bowel; like carcinoma, fibroid tumor, or possibly a diverticulum. Where we are confronted with a severe case of constipation in a child, we should be suspicious of a megacolon.

However, when atony appears to be present and causing constipation, the cecum is the part of the colon most frequently affected, and usually it is the seat of pronounced fecal stasis. On the other hand, the patient with lack of muscular coordination in the colon, due to weakened and fatigued muscles, gives us the history of having hard, dry stools. This patient also complains of distension and gas pains for which he had often resorted to cathartics and enemas, oft-times with no results, and eventually he becomes very nervous.

In this type of patient, gastro-intestinal studies show a very spastic colon. At 6 hr. after ingestion of the barium, the head of the meal will have reached the sigmoid, indicating a marked colonic hypermotility. After 24 hr., the major portion of the meal will have been evacuated. A barium-colon-enema is seen to pass through the smooth colon with great speed. Finally, the cecum becomes greatly distended because of lost muscle tone. A plate taken after evacuation would show almost all the barium out of the colon, and that no resistance whatever was offered to its exit. In this condition the large intestine is in a state of increased tonicity. The distal portion of the gut is the part usually involved and such local lesions as ulcers, hemorrhoids, and fissures may play the exciting rôle.

Abnormalities in course or outline of colon.

If about 6 hr. after ingestion of a contrast meal by mouth, a deficient filling appears in the mid-cecal area, while the lowest ileal coil and ascending colon appear normally filled, and if clinically we find blood or pus in the stools, diarrhea, hectic fever, tenderness in right lower quadrant, we may suspect a "cecal tuberculosis". The part of the cecum involved in this process is at no time well filled with barium. A localized hypermotility appears to surround this ulcerative region, resulting in continuous filling defects. It seems that the ileocecal region is well known to have a predilection for development of tuberculosis.

Roentgen ray diagnosis is based on the lack of sharpness, and irregularity of the contour of the cecum, as well as the rapid emptying of the part involved.

One recognizes a barium-colon-enema by the lack of haustral markings. Therefore, in rendering interpretations by above, we are dealing with unnatural filling and emptying. We also must take into consideration whether our plates are taken in the upright or prone position, as the intestines assume different positions in different postures. The manner in which our fluid runs into the large intestine by barium-colon-enema is indeed important. However, it is still more important to



Fig. 4—Polyps in descending colon and sigmoid regions

observe its contour and form after evacuation of the enema. All irritative areas that have a tendency to be hypermotile will be clear and empty. Remains of the enema will always be found above a stricture or tumor. When malignant tumor of the large intestine is suspected, a contrast enema should be used. A filling defect in such case is brought about by infiltration into the wall and tumor projection into the lumen of the colon. However, all conditions causing filling defects are not necessarily malignant, as is evidenced by like Roent-

gen ray findings in typhlitis, appendicitis, tuberculosis, lues and actinomycosis. A favorite site for malignant tumors appears to be in the distal portion of the sigmoid. No obstacle whatsoever may be encountered at this point with an oral introduction of the dye. However, by barium-colon-enema we note that our enema is suddenly obstructed in its flow. Barium may also be running out of the tip on to the table, even though the rectal tip is well inserted.

It is of common knowledge to roentgenologists that lesions in the colon cause the affected area to become so irritable that a "barium meal" or enema will stay out of it. Therefore, we see that in such conditions as malignancy, typhlitis, tuberculosis, lues and actinomycosis, a marked irregularity in filling exists.

In a study of the colon by barium-colon-enema, the condition of ileocecal incompetency is often met, and is especially seen when colon inflammation or obstruction is present. In considering the histopathology at the ileocecal junction, we note the presence of a great amount of lymphoid tissue in this region, the so-called Peyer's patches. How can we account for this great amount of lymph tissue located at the distal ileum near and in the appendix and ileocecal valve? If we remember that the cecum is a fine reservoir for food and water, we can see how good a breeding place for microorganisms we have in this portion of the bowel. Nature's defense is the superabundance of lymphoid tissue. Therefore, we can readily see that disturbances in the ileocecal region are frequent and any irritation to the valve at this point will cause an incompetency, whether it be due to appendicitis, colitis, typhlitis or tuberculosis.

Diverticulitis of the colon is a subject with which we are all too little familiar. The pathology and symptomatology may simulate, to some extent, the so-called "left-sided appendicitis", as this condition seems to occur in the majority of cases in the sigmoid. If one can imagine "acute appendicitis" developing in

the left iliac fossa, one would have a good knowledge of the pathology and symptomatology of "acute diverticulitis". The cause of this disease is the development of exaggerated sacculations of the colon with marked constriction and narrowing of the mucous orifices. If one were to dissect the colon and observe its mucous lining, it would appear as though a series of small holes had been punched therein, each leading to a dilated pouch called a diverticulum. Such a diverticulum may become inflamed just as does the appendix, and is then spoken of as an "acute diverticulum".

To show how much more commonly the disease is recognized than formerly, I might cite the report from the Mayo Clinic of 215 cases over a period of 16 years, preceding 1923, and 1900 cases recognized in the 4 years following.

However, diverticulitis should be distinguished from diverticulosis. In the latter, we include all the diverticulae of the intestines without inflammation, whereas "diverticulitis" refers to those cases in which one or more of these areas have undergone inflammatory changes. Long continued constipation, together with chronic colitis, seems to be a predisposing factor.

Diverticula that have undergone inflammatory changes over a long period of time may give rise to a chronic, thick-walled abscess in the left side of the pelvis, and the symptoms produced may resemble those of carcinoma, on the one hand, or pelvic abscesses and pyosalpinx, on the other.

Diverticulitis seems to be more often encountered in males than in females. It is far more common than generally supposed and should be kept in mind when considering such obscure abdominal conditions as sigmoiditis, transposed left-sided appendicitis, carcinoma, tuberculosis, and pelvic conditions.

In concluding, I might state that few pathologic conditions in the colon should be overlooked if a barium-colon-enema is carefully observed upon introduction and expulsion.

CORRECTION OF UNILATERAL FACIAL PARALYSIS

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Correction of the disfigurement characteristic of unilateral facial paralysis undoubtedly has some interest as a surgical procedure, and while this case is presented primarily because of professional interest in the surgical possibilities, it seems appropriate to mention that, in this, as in other afflictions with which all are more or less familiar, such as the unregarded dislocations of nasal elements which result in unsightly disfigurements, the local, physical, injury is of far less importance to the patient than the psychic reflexes of social contacts. Human beings are sensitively aware of their facial imperfections, and if they are not so situated that their earning power is definitely contracted because employers shun them, as so often happens, there is still the cumulative influence of withdrawing themselves from the company of friends and of magnifying the grievances which originate in continuous introspection. Consciousness of deformity is a much greater affliction than the derangement of tissues for inadequacy of function by which it may be accompanied.

When, for any reason, the conductivity of the facial nerve is definitely interrupted, and innervation is withdrawn from the muscles it normally serves, there is, of course, a tendency to atrophy of those muscles, and to a wasting which would be in itself a disfigurement, because of the obvious lack of balance with the other side of the face. Unfortunately, the mischief does not end there. The mouth is surrounded by a sphincter muscle, but the orbicularis is not an independent entity, as, for example, is the orbicularis oculi. Strands of the other facial muscles enter it, and in health operate in a close association. These infiltrations are from both sides, and their actions

are antagonistic: the play of one set balances the play of the other. The antagonism is not violent, but it is unrelenting, and when the force is withdrawn from the whole of one side, through lost innervation of all the muscles whose strands enter the orbicularis, there ensues a steady pull by the muscles of the live side of the face and a tension on the unrelenting muscles of the paralyzed side. In the course of time, the mouth deformity characteristic of facial paralysis is produced by a shifting of the tissues; the symmetry normally associated with that area being eliminated in greater or less degree. In the case here to be



Fig. 1—Appearance at first interview; total paralysis of seventh nerve on one side. Lagophthalmus complete

reviewed this had been going on for 48 years.

Another common disturbance of balance is that caused by failure of nerve supply to the orbital sphincter. Since there is no resistance to the levator muscle pull, the eye cannot be closed, and the result is a permanent lagophthalmus. Again, the delicate muscular processes associated with motions of the nostril are entirely interdicted.

These conditions suggest the methods that ought to be adopted, if the opportunity exists, for their correction. Of course, if the seventh nerve could be re-animated throughout all its facial distribution, that would be an ideal proposition, and experiments in nerve-

splicing are made from time to time with that object in view. So far, however, no method has been devised that can be regarded as uniformly dependable.

The problem must, therefore, be approached in detail rather than as a whole, and the operator's interest is obviously directed to those muscles associated with mastication and whose innervation is derived not from the seventh nerve but from the fifth. One of these, the temporal muscle, has the advantage of being situated close to the orbital region. Another, the masseter, is in nearly as convenient a relation to the oral canthus and the nostril. There is a plain invitation to ascertain whether energy in the temporal and masseter muscles can be transferred to muscles that have been left without energy, and, if so, how that can be accomplished.

The answer is indicated in the photograph (Fig. 2) which demonstrates that the lagophthalmus has been overcome. From this, the necessary implication is that when strips of the temporal muscle are turned on their pedicles, carried under the skin of the eyelids, and so brought into direct and close contact with the strands of the underlying pars palpebrarum of the orbicularis oculi, the conductivity of the nerve impulse, carried by the nerves in the muscle graft, is extended into the moribund nerve organization. That the nerve fibers and nerve endings in the paralyzed tissues do prove sensitively receptive to the imported impulses is, of course, the root of the matter. The time factor may differ in different cases, but it is interesting to observe that in some instances a degree of stimulation, as noted in movement of the upper lid, is to be seen almost immediately after the operation.

A second observation of interest is that when re-animation of the muscle is effected in this manner the stimulation is direct. The action set up is that of the existent nerve endings. There is no inconvenience such as has been observed when the main facial nerve is spliced with another nerve of its own potential, and when the natural facial movements may set up, through reflexes conveyed to the spliced companion nerve, motions that are involuntary and startling.

In the procedure for implantation of grafts

there are 2 details worth noting. The zygomatic bone intervenes between the temporal muscle and the orbit, and presents an eminence that compels consideration. To carry the muscle strips over it would be to create a disfigurement, and it is an axiom of reparative surgery to avoid doing that, if possible. Equally pertinent is the fact that the attainable muscle strips are so short that if carried over the eminence the ends will not reach much beyond the outer canthus; whereas, when the bone is shaved down, to a level that does not materially reduce its protection to the orbit, the grafts can be carried clear across the orbit, close to the rim margins of the lids, to meet at the inner canthus.



Fig. 2—Eye open.



Fig. 3—Eye closed.

Re-animation of the orbital muscles is, however, still incomplete. Function in that quarter depends, as to many familiar motions, upon an intimate interplay of the orbicularis, the frontal, and the corrugator muscles. These latter are included in paralysis due to failure of the facial nerve. There is, fortunately, a practicable resource in the frontal muscle of the unaffected side, and a muscle pedicle brought over from it can be given insertion that will be of service both to the corrugator and the median area of the frontal. The external area of the frontal muscle receives a graft from the temporal, being a third strip separated at the same time as those meant for the lids, and carried with them through the furrow made by reduction of the zygomatic bone.

It is evident that if these procedures are effective, the same principle can be applied in the lower facial area by division of the masseter muscle. Whether it is done or not is a matter of the surgeon's judgment. The local dysfunction, in so far as it affects the nostril, is not as serious a matter as the lagophthalmus. Nevertheless, if in the individual instance it seems desirable to extend the area of re-animation, pedicle strips from the masseter may be given insertion in the zygomatic, in the labi superioris alaque nasi and the caput angularis, at their junction, and in the orbicularis in its downward curve near the oral canthus.

With extreme distortion at the mouth, the surgeon may prefer to postpone, or to dis-

pense with, this part of the procedure. Restoration of facial symmetry may be the more important immediate purpose in both the esthetic and the functional interest. In any circumstance, there must be correction of that displacement of tissues which accounts for the characteristic oral distortion, and there is no way this can be done except by application of tension. At this point in the inquiry as to the possibilities, attention is diverted to the means by which such tension can be applied and maintained. Any strong material might be used to fashion a sling by which the mouth might be straightened; but that effort would be vain if the support were to be withdrawn; for the distortion would promptly reappear. The tensile material must remain among the subcutaneous tissues. It must be, for that

reason, something the tissues will not immediately begin to expel and soon end by expelling. No foreign substance will be tolerated long. The body must supply its own raw material for slings that are to do the work, and, fortunately, the body supplies one in ample quantity. Fascia is the only solvent of the distortion problem in unilateral facial paralysis. Tests have recently been made to determine the resistance of fascia to pressure strain, and it was demonstrated that in longitudinal direction it yields but little under heavy strain; and elongation is scarcely noticeable under any pressure within the purview of the surgeon. Of lateral strains the same cannot be said, as those engaged in abdominal surgery have learned.

a stanchion near the canthus of the mouth; and the third, from the temporal area to a point beyond the median line of the upper lip. Selection of the stanchion points is governed by the degree of distortion and judgment of the operator as to what is needed to restore normal appearance. The 2 strands in each channel are then drawn up under such tension as may be required, and before the ends are tied the fascia is woven, basket fashion, with the subsurface tissues. When correction of the distortion has thus been achieved the incision is closed. The resistance thereafter offered to the pull of the muscles on the sound side of the face is mechanical, not to say static, but it effectively prevents a return of the condition. The fascia, the agent of this resis-



Fig. 4.—Functional correction at orbit; esthetic correction, with aid to function, at mouth



Fig. 5.—Lateral view, showing restoration of contour levels

The fascia needed for the procedure here in question is to be had in any quantity desired from the thigh muscles. Cut into strips of the necessary length, it is introduced under the skin at 3 points in a continuous incision made in the temporal and pre-auricular areas. Carried by a grasping needle of special design, the fascia strip is carried through a channel under the skin, dipping occasionally into the tissues below, to points in the mouth area. The lowest is thus carried to a point beyond the median line of the chin, noosed round a muscle stanchion there, and returned through the same channel by withdrawal of the needle. The second sling is carried from a little higher up in the pre-auricular area to

tance, does not disintegrate or otherwise change, but lives among the living tissues, and maintains its tensile properties without impairment.

There remains, however, a condition due to waste and atrophy of the facial muscles so long deprived of their innervation. There is a flatness on that side of the face, relative to the other side with its better nourished tissues, of which, in fairness to the patient, account must be taken. Here, the only resort practicable is to amplification by replacement. In areas of perceptible depression, there are inserted under the skin, grafts which will be tolerated and live. These are to be found in morsels of whole-thickness skin from which

the epidermis has been removed, turned on themselves, with the fatty subcutaneous parts left on the outside, and so inserted below the skin as to establish an acceptable general level.

The photographs convey an indication of the degree to which, by application of the methods described, correction of the distortion and dysfunction is achieved.

Case history. The patient came to me on November 15, 1928. She had scarlet fever at 4 years of age, followed by otitis and an inoperable mastoiditis. Later, necrosed bone was removed, but not until after paralysis of the facial nerve had been established. She had been several times advised that nothing could be done for relief, and had become resigned to this view.

On February 22, 1929, an operation for mechanical correction of the mouth distortion, by means of fascia slings, was performed.

April 17, 1930. Re-animation of the muscles of the orbit. December 16, 1930. Correction of inequality due to atrophy, by insertion of dermo-epidermic grafts to raise the general skin level.

There were several minor postoperative adjustments.

CONGENITAL CYSTS OF THE LIVER

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Judging from an extensive review of the literature, the occurrence of cysts of the liver, other than the hydatid cysts, is rare enough to merit reporting. When such cysts do occur they are usually congenital in origin, have developed slowly from the biliary ducts, and are generally multiple, symptomless, and found during the course of exploratory laparotomies or at autopsy. I can find no record of large, single cysts springing from the liver, such as the one I am here reporting.

Case. N. F., a white woman 26 years of age, entered the hospital September 30, 1931, complaining of an abdominal tumor, malaise, and occasional headache. Her previous history revealed measles, chickenpox, scarlet

fever, smallpox and pneumonia. Tonsillectomy at the age of 12; menstrual history regular and normal; married and had 1 child living and well at 2 years of age.

On August 14, 1931, the patient applied to Dr. Schofield for a physical examination, required before admission to a training school for nurses. He discovered a mass in the pelvis and advised its surgical removal. At that time the tumor was apparently about 4 in. in diameter; was painless, and freely movable in the pelvis.

On admission, her physical examination showed normal conditions except for the abdomen, which in the 6 weeks since the first examination had increased in size so as to have the appearance of a full-time pregnancy. A large, soft, fluctuating mass filled the pelvis and a fluid wave was present across the abdomen. A diagnosis of ovarian cyst was made.

Operation, on October 1, 1931, through a left paramedian incision, revealed a very large, smooth cyst completely filling the abdomen. There were no adhesions. The cyst was attached by a broad pedicle, 4 in. wide and 1 in. thick, to the lower edge of the left lobe of the liver. About 5 liters of a yellowish-grey fluid were withdrawn from the cyst, and the cyst was then removed by blunt and sharp dissection, there being a fairly well-marked capsule separating the cyst from the liver substance. The raw surface of the liver was covered by a continuous, fine suture and the abdomen closed in layers without drainage.

Pathologic report: Large, collapsed cyst, which contains a few red corpuscles and many cholesterol crystals. Diagnosis: Benign cyst.

THE COUNTY AS A UNIT FOR PUBLIC HEALTH SERVICE

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There is a growing appreciation of the importance of public health service; first, because protective measures are more apparent in their effect, and, secondly, because of the necessity of conserving one's health in this

highly competitive era. At the same time, we are entering on a period of retrenchment in public expenditures. There are 2 ways of meeting the situation: (1) devoting a larger percentage of the tax dollar to health; (2) making public health practices even more effective and economic. It goes without saying, health has not received its just share of the tax dollar; in fact, it does not appear among the items of public expenditure in many localities. That aspect of the problem, however, will not be stressed, since we are here considering how a unit of government may be used to better advantage as an instrument for applying existing knowledge to the prevention of disease and the promotion of health.

Evolution of public health organizations. The protection of health has long been regarded as a responsibility of municipal governments. Cities have been forced to apply all known measures to insure their very existence. Until recently, sanitation received primary consideration, but gradually there has been a shift in emphasis and attention is now centered on the individual. City health work has been a local development without stimulation or supervision by state or national governmental agencies.

Rural health service is of more recent origin and is closely identified with the growth of state health departments. The early work of state health departments in rural areas was directed toward the control of specific diseases, notably malaria, typhoid fever and hookworm infestation; more recently, attention has been centered on the health and physical status of children. State health departments soon realized the necessity for increasing the scope of the program and of setting up local organizations. In some states, administrative districts were created; in others, the work was done through existing local governments.

In recent years many changes in modes of living have been brought about as a result of improvements in methods of transportation and communication. Among these may be mentioned suburban development and the decline of the village as a community center. The farmers now dispose of their produce in nearby cities and the people who work in the cities may reside, or at least find their

recreation, in the surrounding countryside. These, as well as reasons of economy, have necessitated the discharge of governmental functions through larger units.

There have been many experiments in the unification of health administration, but the *county health department* offers the greatest promise of meeting the situation; the county health department is, therefore, the only health organization to be spoken of in this paper.

Requirements of local administrative unit. Quite obviously, any local unit for administration of a governmental function must have taxing powers, and authority to promulgate and enforce necessary laws and ordinances. Such a unit should have sufficient wealth to form a stable basis of support and sufficient population over which to spread the cost of the service. In so far as possible, the people of the area should have the means of satisfying their chief social and economic needs within its borders. It is always desirable to develop a service such as health within an existing governmental structure rather than create administrative machinery for this special purpose.

Suitability of county. The county, more nearly than any other unit common to a large number of states, meets the requirements set forth in the preceding paragraph. It is a political entity, usually quite a sizable unit of population, and has powers both of taxation and law enforcement. There are still many adjustments to be made before it becomes ideally suited to the purpose. It may even be necessary to change local charters and political boundaries quite radically before any great measure of economic county government is possible in some states.

In certain states, the county scarcely exists except, perhaps, on paper. Even where definitely established, it is a weak unit of government with no centralized authority such as is vested in the mayor and council of a city. Within the county there may be several more or less independent jurisdictions, such as incorporated cities, school districts, townships, and various improvement districts all having limited fiscal and administrative powers, some of which may pertain to health. The county may not be a social and economic unit but

merely an area tributary to some nearby city. Some counties are small, others sparsely populated, and not infrequently financial resources are very limited. But, in spite of its handicap, the county remains the best available agency around which to organize a state-wide plan of health service. The advantages of the county have long been recognized in developing our system of education and highways. Its adaptability to many other purposes is being tried.

Plan of organization. In Alabama, all health service within a county, both urban and rural, is rendered by the county health organization. The laws of several states make possible the formation of health districts by vote of the people or by action of the elected representatives. Such laws may permit the union of several townships, 2 or more adjoining counties, or may provide for the consolidation of all health service within the county. The cities of a few states may contract with the county for health service. The prevailing plan is a coöperative arrangement under which the several units of government within a county pool their funds in a joint budget and agree on the appointment of the personnel. Under all circumstances the health officer is responsible for the successful conduct of the work. The local administrative body may be a board of health, or the health officer may be directly accountable to elected officials; and the State Health Department usually retains some measure of control over local health organizations. Where a state-wide system of county health service prevails, this control may be exercised through the granting or withholding of financial aid.

Method of financing. The most common method of financing is through an annual appropriation by the local fiscal bodies. Another method is for the people to vote a fixed rate of tax for health purposes. In a few counties the administration of health affairs is in the hands of a board which is empowered to levy a tax up to a specified amount. Many states contribute financial aid to the support of approved projects; in some instances as much as 50% of the total budget. For a number of years the U. S. Public Health Service has been aiding in the support of such work in rural areas over a temporary period for demonstration purposes. Special grants may

be obtained from other sources, including the national volunteer health agencies and a number of the foundations.

Growth and present status of county health organizations. The first county health department was organized in Yakima County, Washington, in the year 1911. Since that time there has been a gradual increase in the number of such departments, but the most rapid growth took place following the World War and the Mississippi River flood of 1928, and there are now approximately 3000 county, or comparable district, health departments in the United States. On January 1, 1931, 557 county health departments were in operation, and their distribution, by states, is shown in the following table, reproduced from U. S. Public Health Reports, Vol. 46, No. 37, Sept. 11, 1931.

WHOLE-TIME COUNTY OR LOCAL DISTRICT HEALTH UNITS, JANUARY 1

State	1927	1928	1929	1930	1931
Delaware	0	0	0	0	3
Alabama	30	33	50	51	54
Maryland	6	8	9	11	14
Arizona	2	3	3	3	6
Ohio	47	47	45	46	46
South Carolina	16	16	20	23	23
Louisiana	10	28	29	31	31
North Carolina	37	37	39	38	39
Tennessee	14	17	23	38	42
California	9	9	11	12	13
Oregon	5	7	7	7	8
West Virginia	13	14	14	15	16
Washington	6	7	7	8	8
Kentucky	9	32	39	45	43
Mississippi	18	24	29	28	28
Arkansas	3	21	24	21	24
New Mexico	9	8	7	7	8
Virginia	15	14	16	17	26
Missouri	12	14	12	13	13
Georgia	24	27	31	34	30
Michigan	0	0	3	4	24
Connecticut	1	1	1	1	1
Oklahoma	9	9	10	9	9
Kansas	9	10	10	11	12
Pennsylvania	0	0	0	0	3
New York	1	1	2	4	4
Utah	6	5	3	3	2
Montana	3	3	3	4	4
Idaho	0	0	0	2	1
Maine	5	4	4	4	4
Texas	5	4	4	6	7
Florida	3	3	3	2	3
Minnesota	1	1	1	1	1
Massachusetts	1	1	1	1	1
Colorado	1	1	1	1	1
Iowa	1	0	0	0	2
Illinois	3	3	4	2	2
South Dakota	2	1	1	1	1
Wyoming	1	1	1	0	0
Totals	337	414	467	504	557

Reports as of January 1, 1932, are not yet available.

Program. Quite obviously, it is impossible to speak in detail of any standard program for an area so large as the United States, containing more than 3000 counties, each differing from the others in many respects. A few activities, however, are common to health departments of all sections:

Collection and analysis of reports of births, deaths and sickness.

Control of acute communicable diseases by means of quarantine, immunization and correction of environmental factors.

Dissemination of information concerning hygiene of maternity and early childhood.

Control of tuberculosis, venereal diseases and other endemic preventable diseases.

Periodic physical examination of school children and promotion of corrective work.

Industrial and adult hygiene.

Sanitation covering water supply, disposal of sewage and wastes, and the production of milk and other foods.

Diagnostic laboratory service.

Popular health instruction.

Public health problems of local importance not encompassed by the above outline are included in the program. While it is not common practice, there are certain distinct advantages in placing the health agency in charge of those medical services which may be accepted as a public responsibility, provided this arrangement does not interfere with the financing or conduct of preventive work.

Personnel and budget. The personnel will vary with the funds available and the problems confronting the health department. In the average rural county containing 25,000 to 30,000 people, a program may be inaugurated with 1 full-time health officer, a sanitary inspector, a nurse and a clerk. Laboratory service can usually be secured most economically from the State Health Department's Laboratory, or from a local hospital on a contract basis. Within a short time, the regular health department personnel should be increased by the addition of a medical assistant, 1 nurse to each 5000 population, and possibly a second sanitary inspector. Clinicians for the special public health clinics may be secured on a part-

time basis from the local physicians, or they may be supplied by the state department on an itinerant basis. The personnel and budget for larger counties should be increased and bear at least the same ratio to the population. Provision should be made in the budget for laboratory service and the employment of a sanitary engineer. Inclusion of a large city may create additional demands. It may be advisable to divide the department into bureaus representing important units of activity with a director in charge of each and to establish local stations for the distribution of service. The administrative personnel should be trained in public health and be employed on a whole-time basis. Clinicians drawn from the local physicians need devote only such time as may be required for operation of the clinics. It is desirable that the "health officer" be a graduate in medicine, although it is not necessary (except where required by law) in the larger departments employing physicians in subordinate positions. The salary of the health officer should compare favorably with the average net income of the better grade of physicians practicing in the area. The salary of the other workers should be equivalent to the prevailing income of their respective professions.

The budget for the minimum organization described above will entail an expenditure of about 50 cents per capita. It is scarcely possible, however, to meet the elementary health needs for less than \$1 per capita. If any part of medical service is to be charged to the health department budget, such as bed-side nursing care, the operation or subsidy of hospitals or clinics, the budget must be increased accordingly.

Methods of promotion and stabilization. Occasionally a county health department will develop through local initiative, but experience has demonstrated that a comprehensive and sustained program is scarcely possible without the promoting and stabilizing influence of the state health department, many of which departments have regular appropriations with which to aid in this work. Over and above financial aid, it is essential that the state health department provide leadership and consulta-

tion service through temporary assignments of experts in the several branches of work.

In most counties, particularly those containing large cities, there will be a number of local health jurisdictions and several private health agencies. The activities of the several organizations when pieced together may constitute a program, and the several organizations may for a time coördinate their activities under a purely coöperative arrangement. Permanency and stability, however, are scarcely possible unless at least the basic activities are financed through taxes and unified under the direction of a health officer.

The influence of the health department in the community will be determined, in large measure, by the character of the personnel and the fitness of each for his job. Public health service is now *a specialty*. At least the key positions should be filled by people who possess the necessary personal qualifications and who have had special training. The need for adequate salary has already been stressed. Governments, and particularly health agencies, should lead the way in providing continuity of employment with provision for disability and retirement.

To a certain extent the public health movement is an influence to be incorporated into the every-day activities of people in all walks of life. It must also be understood that health is affected by many factors not under the control of health departments, such as economic resources, education and the availability of medical service. The health department, however, should be recognized as the agency in which to centralize those activities, affecting health primarily, that have been accepted as a public responsibility.

Finally, the permanency and growth of a health organization will be determined by the suitability of the program to the needs of the area and the economy and effectiveness of its operation. A county health department which serves the county as a unit has proved to be a satisfactory organization for meeting the health needs of rural areas. It is also adapted to population groups united by social and economic ties but distributed among political jurisdictions which have little relationship to the existing plan of community organization.

EARLY SYMPTOMS OF CONGENITAL DISLOCATION OF THE HIP JOINT

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The study of congenital abnormalities is as old as the study of medicine, for we find in the works of Hippocrates that the Ancients were familiar with the various deformities that were known to exist from infancy. Hippocrates' description of congenital dislocation of the hip omits few important symptoms of that deformity as we recognize them today.

Sir Astley Cooper is credited with the remark that up to his time the medical profession was totally ignorant of dislocation of the hip joint, and that the contributions of his fellow countrymen, as well as those of continental writers, had offered little information of value.

Today congenital dislocation of the hip holds a position of increasing importance, as is evidenced in recent medical literature. We are now fortified with some definite scientific facts that have been established by a careful study of statistics gathered from all parts of the world, by advanced knowledge of pathology, by the use of x-rays, and, more important still, by more intelligent interpretation of what the x-ray film shows in the comparative study of control films of normal hip joints from the first weeks of life. Interest in this deformity has been too closely confined to the special field of orthopedic surgery, without a sufficient understanding of the many problems involved in its pathogenesis, and without thought of other members of the profession, particularly the obstetrician and the pediatricist, upon whom the orthopedist must depend for establishing the very earliest symptoms.

There may be a history of congenital dislocations in the family, on either side, father or mother, and with this in mind the mother may seek advice of the family physician. The early symptoms most frequently reported by the mother are:

(1) Abnormal position of the leg, in which the entire extremity is held externally rotated and slightly flexed. In the very early stage

of bilateral dislocation this symptom is not so apparent as in a unilateral case, and the child may enter the period of walking before anything wrong is suspected.

(2) The mother may state that the child does not use one leg as freely as the other.

(3) She may report an apparent inequality of the legs, noticeable when both extremities are fully extended, and while she may be unable to state whether one leg is too long or the other too short, she is convinced that something is wrong with one of them. In any event, the wise surgeon always heeds the suspicions of a mother.

It is advisable to follow a routine, systematic examination when searching for abnormalities of gait and posture; an examination in the erect position, then in the sitting position, and on the table in both, prone and supine, positions. Symptoms thus elicited, supplemented by a careful interpretation of the radiographs of both hips, should enable the examiner to arrive at an accurate diagnosis in any child under 1 year of age and, in certain instances, as young as 4-5 months.

In the erect position, the silhouette of the lateral surfaces of the body varies slightly from the normal because of increased prominence of the intertrochanteric line which, on the side of the deformity, is both more pronounced and more angular. There is usually a slight tilting of the pelvis also, toward the side of the deformity, and if displacement of the head is complete, there is a scoliotic curve apparent in the lumbar spine with an increased lordosis. The bilateral condition shows additional signs, consisting of separation of the inner margins of the thighs at the perineum level, an exaggerated angulation of the trochanters, and an increased lordosis. Shortening and slight atrophy of the leg are generally apparent to the naked eye, while the skin folds, which are so prominent in all infants, should always be carefully inspected. In unilateral dislocation there is an increase in number, and a proximal displacement of, the skin folds on the dislocation side. At the groin there is an increase in depth and length of the inguinal fold distinctly visible, and at times it may extend outward to the prominence of the great trochanter. The external

rotation of the leg is quite noticeable and usually there is a slight degree of flexion at the hip joint. On the dorsal surfaces, the gluteal folds are correspondingly increased in length, depth and muscular atrophy in the gluteus muscle.

As soon as the child *begins to walk* the degree of deformity becomes quite noticeable. With very young children there is a distinct effort to avoid walking, beyond the age when walking should begin normally, and when an attempt is made to have the child stand unsupported, it will assume a squatting position on the floor and propel itself by alternately shifting the body from one buttock to the other. After it has learned to walk, the gait becomes a characteristic symptom of the deformity. In the unilateral cases the abnormal gait is confined to the affected side due to the external rotation of the leg and the instability of the hip joint which permits the body to sway awkwardly toward the side of the deformity. The gait constitutes purely a mechanical defect at the joint and is not painful nor is there evidence of marked rigidity or muscle spasm. As the duration of deformity increases, and the head becomes more displaced from the socket, exaggeration of the peculiar gait increases proportionately. If the child is old enough to run, skip or jump on the affected leg, the joint instability becomes accentuated.

When examined in the supine position on the table, with the examiner standing at the end of the table, inequality in length of the extremities can usually be detected by noting the different levels of the inner malleoli. The disturbance in the normal position of the hip is shown by alternately rotating the legs internally and externally, which brings out a restriction of motion in internal rotation, *in all cases*, and an increase in the range of external rotation beyond the normal. Abduction of the thigh is resisted by muscle spasm on the deformity side, and in order to elicit the finer degrees of muscle spasm, in very young children, it is advisable to flex the thighs on the abdomen and then, grasping both legs at the level of the flexed knees, gently circumduct the thighs in an outward direction, so that extremes of motion will be

resisted on the side of deformity. Examination of the femoral head is the most important thing but that becomes increasingly difficult the younger the child, and may prove quite disappointing to the inexperienced examiner because very young infants do not present prominent bony landmarks about the pelvis and hip, and their joints are covered with a thick and resistant layer of subcutaneous fat which may serve to disguise the deformity. The true position of the femoral head can in most instances be accurately determined by carefully palpating the head in the region of the femoral artery, but in so doing the child must be quiet and relaxed, and the examiner must be quite careful to avoid any pressure with his fingers that might excite muscle spasm about the joint. Superficial rotary movements of the thumb on the skin over the femoral artery will identify this structure by the very perceptible pulse, and then proceeding upward along the course of the artery to a point 1 finger's breadth below Poupart's ligament, one can localize the superficial surface marking the normal femoral head; then, grasping the trochanter and neck of the femur from behind, with 4 fingers, and exerting pressure directly downward with the thumb, keeping to the outer side of the artery, one can very easily determine an abnormal position of the femoral head. In the majority of cases it is placed outward and upward, in varying degrees, depending upon the individual conditions; rarely, it may be displaced forward, beneath the anterior-inferior spine of the ileum; and more rarely still, in the obturator foramen.

As one would expect, the classical description—of finding the femoral head displaced upward on the side of the ileum—does not hold true in very young infants, and only shows at a later period, when continued weight-bearing displaces the head upward against the muscular sling which supports the head and limits its upward movement. In the very young children one must learn to develop the sense of touch with greater acuteness, in order to detect the lesser degrees of displacement, and this can only come with large experience.

Mensuration of the length of the extremi-

ties should always be made but in the very young this is quite difficult and unreliable, and may be of little assistance in diagnosis. When the child has reached the walking period, and the displacement of the head is more marked, the true inequality of the extremities can be measured. A more accurate determination can be made of the upward displacement of the head, by measuring the relation of the greater trochanter to Nelaton's line or Bryant's triangle.

Examination of the child in the prone position will bring out more clearly the finer degrees of muscle atrophy in the gluteus muscle, which can best be determined by standing at the end of the table with the eye at the level of the buttocks, and the light beyond the patient. In this position, it is also easier to determine the finer degrees of restrictions of internal and external rotation at the hip. When dealing with bilateral dislocations, the atrophy of the buttocks, the upward displacement of the trochanters, and the comparative signs of the hips, are of less significance, except in the fact that they both differ from normal. It is essential, however, that a careful examination of both hips should be made in all instances, as bilateral dislocations are rarely, if ever, present to the same degree; and, when dealing with unilateral dislocations one may frequently detect a subluxation on the opposite side, if trained to look for it. Examination of the child in the sitting position has its particular value in the case of early bilateral dislocations, rather than in the unilateral case, and shows the abnormal position due to an increased lordosis of the lumbar spine, and a forward displacement of the axis of the body, from the posterior surfaces of the neck and trochanters of the femur to the tuberosities of the ischium, which gives an appearance of shortening of the trunk and produces a decided instability in the sitting position.

When examined in the erect position, with the child standing on the table and its body weight equally distributed through both hips, one can place considerable reliance on the Trendelenberg sign; which is positive on the side of dislocation and signifies instability of

the joint due to displacement of the head and lost apposition of the skeletal structures.

X-RAY EXAMINATION OF THE SUSPECTED HIP

Great stress must be placed on the value of correct interpretation of the x-ray picture for it furnishes a very reliable source of information in the early cases now, and in all probability it will be the means of securing further knowledge whereby the earliest signs will in the future be recognized. Before this is possible, however, it will be necessary to have further x-ray knowledge of the growth and development of normal bones, so that a comparative study may identify the abnormal development which always precedes the actual dislocation. The characteristic signs that we are able to detect in the radiograph at the present time, are as follows:

- (1) Decrease in depth and a flattening of the acetabular cavity.
- (2) Loss of angulation of the acetabulum roof.
- (3) Displacement upward and outward of the femoral head from the cotyloid ligament.
- (4) Disturbed relations of the pubofemoral arch.
- (5) Disturbed relation of the pubotrochanteric line.
- (6) Retardation in development of the femoral head.
- (7) Torsion of the femoral neck and loss of the normal angle of inclination.
- (8) Absence, or diminution in size, of the nucleus of the center of ossification.
- (9) Flattening of the articular surface of the head in the more advanced cases.

PATHOLOGIC ANATOMY

The essential points that have been demonstrated on operative cases and postmortem examination are the following:

- (1) Alteration in the normal structure of the upper acetabular rim.
- (2) Ligamentum teres altered in structure and position, and in some instances totally absent.
- (3) Capsule is elongated and generally thickened, and when displacement of the head

has continued for a considerable time, an "hour-glass" constriction may be present.

(4) Abnormal thickening of the lining synovial membrane with retrograde changes, producing smooth shiny surface.

(5) Flattening of the articular cartilage of the femur corresponding to the malformed socket.

(6) Under-developed femoral neck and a torsion of the head and rudimentary neck.

(7) Muscles surrounding the joint are altered in their position and function after the head becomes displaced. The intrinsic muscles, particularly the gamelli and pyriformis, appear to suffer the greatest degree of atrophy, as is likewise true of the psoas and iliacus muscles. The gluteus minimus suffers considerable atrophy and may be firmly adherent to the upper surface of the capsule, while the gluteus medius and maximus also undergo degenerative changes that impair their function. The abnormal relations of the muscular and ligamentous structures around the hip joint is one of the chief points that distinguishes this type of deformity from a traumatic dislocation. In the latter instance, the modification of the peri-articular soft structures occurs within a few moments and is again restored to normal as soon as the femoral head is replaced in its normal position in the acetabulum. In congenital dislocation of the hip, however, there is a distinctly different condition, in the fact that the alteration in structure and function of the soft tissues occurs over a long period of time and is, in fact, an important maldevelopment which constitutes the gross deformity and is never actually restored to normal even though the head be replaced in the acetabulum.

It can be very readily understood that the restoration of the femoral head in the case of a traumatic dislocation presupposes the existence of normal soft tissues about the joint that are capable of maintaining the corrected position of the bones following reduction. It is greatly different, however, in the case of congenital dislocation, in which it is found that the prolonged malposition of the head, and the subsequent alteration in structure of the muscles, make it infinitely more difficult to reduce the dislocation, and equally insecure

in maintaining the corrected position after reduction. Restoration of the femoral head is a matter of less importance, as compared to the necessary changes that occur in the muscles during the prolonged period of immobilization.

TREATMENT IN EARLY STAGE

The problems to be met in treatment of congenital dislocation are so varied and so numerous that it is found necessary to consider the treatment with particular reference to the age of the patient and the age and degree of the deformity. Furthermore, there are definite limits established, through practice and experience, which define the usefulness of the various methods employed, and in this respect it has, therefore, proved satisfactory to consider the different methods by grouping the types of cases according to the age period when the various methods are most suitable. I have, therefore, adopted the following groups to emphasize this point:

(1) Children under 1 year; (2) under 3 years; (3) under 12; (4) under 20; (5) over 20 years.

The prime object in all forms of treatment is extreme gentleness in whatever method of reduction is employed, and strict avoidance of any trauma to the articular surfaces, in order to escape severe complications that develop later in life. The age of 12 is set as the limit of physiologic reduction regardless of the method employed. The age of 3 is established as the ideal limit before which time the diagnosis *should* have been made and the treatment successfully terminated. The age of 1 is established because at this age it has been found possible to secure a cure without a manipulative reduction, thereby making it further possible to minimize the trauma to the articular surfaces. A discussion of the methods of treatment beyond 12 years of age involves many points that have no immediate bearing on this paper.

The outstanding aim of all treatment is based upon the belief that the earliest period and the most gentle method of reduction offer the best possibility of recovery. Restoration of the femoral head into the acetabulum is the first essential to be accomplished, but the

functional results are in direct proportion to the perfection of the technic and the thorough understanding of the surgical principles upon which they are based. Progress has been made in recent years in early diagnosis of the deformity, which has also been followed by an advance in the early treatment, in which manipulative reduction has been substituted for prolonged fixation with the legs in full abduction. This treatment applies to children under 1 year of age, when the femoral displacement is at a minimum, and although the method has only been used by Putti for a few years it has, nevertheless, been sufficiently successful to warrant trial. The principles of this early treatment are:

(1) To obtain a progressive reduction of the dislocation without any operative maneuver, seeking to obtain a position of maximum abduction and mid-rotation of the extremity.

(2) To maintain this position by a suitable apparatus that is appropriate for the tender age of the patient; cushions or splints may serve for this purpose and the position is maintained for 6 to 8 months, during which frequent x-ray examinations are made to determine progress.

The advantages of the treatment are: (1) Very early application of corrective methods. (2) Simplicity of the apparatus. (3) Permits the infant to remain in the care of the mother. (4) Omits the rigid apparatus that would be less practicable for young infants. (5) Avoids the trauma, even so slight, that is associated with manipulative reduction. (6) Eliminates the possibility of traumatic arthritis as a complication.

The treatment of children over 1 year of age consists of the manipulative reduction by the methods of Paci, Lorenz, Denuce, Ridlon or Davis, followed by a prolonged period of immobilization in plaster of Paris, during which time the position of the thigh is changed after 3 and 6 months. The remaining treatment consists of functional reëducation of the muscles about the joint. The vast majority of children are treated by manipulation and only very rarely does the question of operative reduction enter into the treatment of children under 3 years of age.

PATHOGENESIS AND TREATMENT OF PELVIC INFLAMMATORY DISEASE

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In choosing a subject of gynecologic interest, I have considered the fact that a large majority of our members are engaged in general practice, and I have, therefore, elected to discuss briefly a variety of conditions which may be grouped under the heading of "Pelvic Inflammatory Disease". Patients illustrating some aspects of that subject are seen in our offices almost daily and the problem presented by the frequency of pelvic inflammatory conditions is a serious one. I hope that a review of the pathogenesis, and some remarks concerning treatment, may be timely and valuable.

Pelvic inflammatory disease may be classified according to etiology as post-abortive, puerperal or gonorrheal. Tuberculosis infection of the tubes, although said to constitute 5% of all tubal disease, is practically never recognized before operation, and will not be mentioned further in this paper. When considering the so-called "cellulitis group" or pelvic infections, those occurring after abortion or postpartum, we think first of causation. Ordinarily, we have confidence that the genital tract is free from vicious infection. Bacteriologic studies have, however, demonstrated that where leukorrhea or other evidence points to a pathologic process, streptococci may be recovered in 30% of cases. In the way of prevention of puerperal morbidity, it is, therefore, important to see each maternity patient as early as possible in her pregnancy, and to make careful inspection of cervix and vagina at that time. It is now realized that a deep-seated infection of the cervical glands may be lighted up by the trauma attending delivery. Erosions of the cervix may be safely treated, even by the popular and effective method of cauterization, until the sixth month of pregnancy. Trichomona and mycelial infection of the vagina certainly deserve treatment during

the antepartum period and, although I am not inclined to advocate instillation of metaphen, mercurochrome or other germicidal preparations into the parturient canal during labor, as a routine, I believe these measures have a worthy application where the bacterial flora of the vagina is suspiciously unhealthy.

For avoidance of postpartum complications, the management of labor is all important, and lack of surgical cleanliness and unwarranted invasion of the genital canal must be guarded against. It may be well to mention here the occasional, disappointing, unavoidable case of puerperal sepsis, occurring where every measure of precaution and obstetric skill seems to have been employed. Care in the third stage of labor is seldom stressed but it is of utmost significance in preventing morbidity after delivery. The almost invariable second stage anesthetic certainly slows uterine contractions and delays spontaneous separation of the placenta. Failing to realize this, the placenta is too often hurried out before this separation is complete and small cotyledons, or portions of amniotic membrane, remain in the uterus. These retained products induce undue bleeding, delay involution, and cause sapremia if nothing worse. A pet aversion of mine, is the placenta basin which every nurse so diligently holds against the patient's buttocks, thus contaminating the perineum by wiping up discharges from the rectum; its use in this way can well be discarded.

With regard to the prophylaxis of post-abortive infection, we all know the rôle of instrumentation; gauze packing being especially certain to cause trouble. Education of women to the danger of illegal operative procedures should be stressed.

The pathologic process involved in these cases is a direct extension of infection through the soft, swollen uterine wall, with a resultant parametritis in the broad ligament tissues. Thrombophlebitis of the pelvic veins may follow and subsequent blood stream infection is not unusual. Localized abscesses may form in the broad ligaments or general peritonitis may result. The tubes are usually infected from without—in contrast with the gonorrheal process attacking the lumen—and a perisalpingitis, with formation of adhesions, results.

These infective processes are mild, or severe, as the case may be, but frequently are protracted over many months.

Treatment in the acute stages consists largely of absolute rest and systemic measures to build up the patient's resistance. Intervention is rarely advisable but inspection of the vagina and cervix should be made and débris which would impair drainage must be removed. In cases of abortion, it is practically always possible to introduce a sponge forceps into the uterus without dilatation of the cervix, and I think it wise to do this—grasping and withdrawing gently any retained products of conception which may be present. No anesthetic is necessary. I have many times seen a high temperature drop to normal within 12 hours after removal of a foul retained placenta by this means. For even a gentle curettage, I hold no brief in presumably infected women.

When under care in an institution, strict isolation of these patients is necessary. Where possible to have, the time-honored fresh air treatment is valuable—no other class of patients responding so well to the stimulus of fresh air and sunshine. In the later course of the infection, progressive anemia is noted and repeated transfusions of blood are of considerable benefit. Antistreptococcic serums used early in the development of postpartum infection, seem to give good results in the hands of some physicians; the readily available scarlet fever serum being chiefly employed. Intravenous injection of aniline dyes or mercurial preparations has, in my experience, no value. Pelvic examination of these patients may be made only infrequently, and then with extreme care. There is little to be accomplished by such an examination, for operative intervention is indicated only where localized abscess formation has become established.

Turning now to pelvic inflammatory disease of gonorrheal etiology, we are dealing with the most prevalent and most important of all gynecologic diseases. The specific organism, the gonococcus, has certain special characteristics that differentiate it conspicuously from all other pathogenic bacteria. There exists to the gonococcus no immunity whatever, either from previous attacks or by indi-

vidual resistance. The organism attacks normal mucous surfaces, no injury of the tissues being necessary. It has little tendency to invade deep-lying glands—though it is frequently found in the gland ducts. Only rarely does it penetrate to subcutaneous tissues, lymph or blood channels. When confined in an occluded space, such as a closed tube, the gonococcus soon dies. But in the folds of mucous membranes, and in gland ducts, the germs may live for a long time in a latent state, causing no symptoms. This makes the problem of stamping out gonorrhea so difficult, for no positive test of cure, or even existence, of the disease exists; smears from vaginal or cervical secretions being notoriously deceptive. But, these latent gonorrheas quickly infect another individual, and they may be lighted up in the host by conditions which cause unusual hyperemia, including child birth and pelvic operations.

Ordinarily, the first gonorrheal attack in a woman is mild and self-limited. The infection is usually checked at the internal os. Symptoms and treatment of acute vaginitis and endocervicitis of this nature will not be discussed here. Repeated attacks, and extension of the infection up through the uterus, aided by chronic disease of the cervix or by instrumentation, leads to the pelvic inflammatory disease which occupies our attention in this paper.

With the spread of infection to the tubes (almost invariably both are involved) there is first a serous, then a purulent, exudate which fills the lumen and covers the walls of the tubes, which become edematous and rigid. Either by escape of infected material from the abdominal orifices, or permeating through the wall of the tubes, a pelvic peritonitis quickly develops and adhesions form, involving all adjacent structures. The fimbrias are folded in, or glue themselves to the surface of the ovaries, and the tubes are effectively closed in either manner. Frequently, the tubes become greatly distended, sometimes with clear fluid, sometimes with purulent material. Ovarian abscesses may develop from infection of ruptured graafian follicles.

The inflammatory process thus briefly pictured varies in degree. In any case, with

proper persuasion, there is a decided tendency to spontaneous recession of the changes described. The tubes are rarely left without lumen obstruction, but absorption of even large exudates is accomplished in remarkable manner and with freedom from symptoms. At least 85% of patients with acute salpingitis progress to ultimate clinical recovery without need of surgical intervention.

The clinical picture of acute gonorrheal salpingitis is important because of frequent confusion in diagnosis between this condition and acute appendicitis; also acute non-specific pelvic infection. The patient is febrile; temperature usually between 102° and 103°; complaining of intense pelvic pain, steady or colicky. The lower abdomen is usually moderately distended and is extremely tender but not spastic. Pelvic examination should cause considerable distress with sharp pain on movement of the uterus. The examiner should be observant concerning signs of gonorrheal infection of the external genitalia; just as the history taken should include record of symptoms suggestive of exposure. Leukocyte count is high and of little value in differential diagnosis. Chills are uncommon, and the record of repeated chills would cast suspicion in direction of a post-abortive infection.

Treatment of acute gonorrheal disease should aim to effect spontaneous recovery. Even where pelvic abscess is known to exist, surgical drainage is rarely necessary. General measures are those dictated by any acute infection; sufficiently prolonged rest in bed being of first importance. Vaginal examinations and douches are to be avoided in the stage of acute inflammation. Vigorous laxatives are contraindicated. Free bowel elimination may be furthered by use of liquid petrolatum by mouth, and daily saline enemas, if necessary. Heat to the lower abdomen is now recommended by many authorities for its beneficial influence. Occasionally, pain is better controlled by the ice bag. As the acute symptoms subside, hot vaginal douches, given with the utmost care, hasten the reparative processes. Only mild antiseptic solutions are employed, preferably normal saline, and a soft rubber catheter No. 16 or 18 F. should replace the conventional douche nozzle. The irrigating

can should not be at a height greater than 3 ft. above the reclining patient. Douches in this manner may be given once or twice daily. When vaginal examination can be made without causing temperature reaction or increase in discomfort, it is felt safe to allow the patient to leave her bed. She should then be given the most careful instructions regarding over-activity, the avoidance of sexual intercourse, and she should be urged to rest in bed during the first few menstruations thereafter.

Chronic or recurrent gonorrheal disease of the pelvic organs presents a confusing variety of clinical symptoms. Persistent pelvic pain is the chief symptom but the character of pain varies according to causation by inflammatory exudates, congestion, adhesions or displacement of pelvic viscera. Pain on defecation is not uncommon, due to the close proximity of inflammatory masses to the bowel. Menstrual disorders are frequent; such periods may be too frequent, the flow unusually profuse and prolonged, or there may be intermittent spotting between the menses. Only recently attention has been focused upon this symptomatology by statistical studies which showed the presence of abnormal uterine bleeding in 35 to 50% of all patients with acute or chronic salpingitis.

Examination of these patients shows tenderness, thickening or distinct masses in the region of one or both tubes. The palpation of freely movable ovaries speaks against tubal pathology. The uterus tends to retrodisplacement, with more or less fixation, a uterus in normal position manipulated without pain, being most unusual in this disease. Rectal examination is helpful, and many a mass which escaped attention on vaginal examination is detected by combined abdominal and rectal palpation. I would like to mention here the importance of full coöperation by the patient in the making of a pelvic examination, and the need for gentleness and deliberation on the part of the physician. Every one of us who takes the precaution of checking pelvic findings by a second examination, several days after the first, has been amazed by the difference in findings—tenderness first noted here or there may have completely disappeared and

new signs will be brought out. The urinary bladder must be completely empty at the time of examination.

Treatment of pelvic inflammatory disease of this subacute or chronic type aims to give symptomatic relief and to bring about resolution of the pathologic process. Where the condition is severe, rest in bed is essential. In all cases the patient should be kept off her feet as much as possible. Long automobile rides are definitely harmful. Attention must be paid to the general condition of the patient—digestive difficulties cared for—anemia treated, if present—natural bowel movements effected without laxative drugs—and correct posture in sitting and standing pointed out. The correct knee-chest exercise must be carefully explained and its importance in relieving pelvic congestion emphasized so that its execution will not be neglected.

Local treatment is of minor importance except where leukorrhea is a complaint. Leukorrhea is not important in tubal disease; being in almost all cases referable to causes below the internal os. The long, hot, vaginal douches described earlier in this paper, are of some value, chiefly for the heat. Diathermy is a better means of applying internal heat and, although I have no personal experience with it, I have heard good reports of its use with an intracervical electrode. It is necessary to avoid physiotherapeutic measures where a pelvic abscess exists.

The Elliott machine, by means of which a continuous flow of water through an intravaginal rubber bag can be maintained at a remarkably high temperature, is proving valuable as an office and home treatment. A nurse can supervise its management and the patient feels little or no discomfort. All types of pelvic infection and even acute cystitis are improved by the Elliott treatment.

Concerning vaginal tampons, it is my belief that their only value is in providing support to a sagging uterus. In several metropolitan clinics which I have visited, ambulant patients with pelvic affections are seen once or twice weekly to have small boroglyceride

packs placed in the posterior vaginal fornix—pushing the fundus upward and, theoretically, aiding the resorption of exudate in the cul-de-sac. At these same visits such patients may be given an injection of autoclaved milk or other foreign protein, and this latter practice is my chief reliance in treatment. Personally, I employ *activin* (Bischoff) 0.5 to 1 c.c., once or twice a week. Numerous articles in literature attest the value of non-specific protein therapy in pelvic infections of both gonorrheal and indeterminate etiology. One author used *aolan*—giving intramuscular injections of 7 c.c. at 4 day intervals, 12 being the average number of treatments. No general reactions followed the treatments and 82% of a large series of patients were entirely relieved of pain, while 46% showed marked improvement in the pathologic condition.

The poorest results in treatment of pelvic inflammatory disease are to be expected where full coöperation of the patient cannot be obtained. When for this reason, after thorough trial, operation is necessary, the sedimentation test offers a fair indication of the quiescent state of the inflammatory process. And, in several hospitals of my acquaintance, operative intervention is permitted only when the rate of blood sedimentation approximates the normal and when leukocytosis is absent. These tests may be applied also when the coexistence of other gynecologic conditions, such as marked relaxation of the pelvic floor, prolapse, or uterine fibroids, makes surgical treatment desirable. Analysis of operative results on more than 1000 patients at the Woman's Hospital, in New York, recently demonstrated that abdominal operations for salpingitis, *while the infection is still active*, are accompanied by an unjustifiable mortality, excessive morbidity, and disappointing end-results.

The purpose of this discussion has been to point out that patients who have pelvic infections should be allowed long periods of convalescence and palliative treatment. If operation is unavoidable, a cure by laparotomy should not be attempted until the inflammatory exudate has been absorbed and the leukocyte count and sedimentation time are normal.

THE IMPORTANCE OF PROPER MATERNITY CARE

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The maternal and neonatal mortality rate throughout the United States has been persistently high for the past 15 years. This rate has, however, been diminishing throughout the areas where proper pre-natal care has been introduced into health programs. It is the rural districts, where no such programs have been established, which affect the mortality rate of our nation.

According to the American Public Health Association Year Book for 1931 and 1932, reports lead to the deduction that the maternal mortality rate in this country could be reduced as much as 60% if pre-natal care alone were introduced generally into health programs. This deduction was made through the study of 4726 pregnant women cared for by the Maternity Center Association in New York. The report showed a maternal mortality rate of 2.4 for mothers cared for by the Association, as compared with a rate of 6.2 for the mothers in the same district but not under its care. The obvious difference in the care received by the 2 groups was that the Maternity Center Association patients had early and constant medical supervision. It hardly seems possible that 1/3 of the maternal deaths in the United States are caused by eclampsia, when we know that eclampsia, except in very rare instances, is absolutely preventable and is readily diagnosed before convulsions occur and the condition becomes serious.

Infection accounts for another 1/3 of the maternal deaths, and is in direct proportion to the length of labor and to the frequency of vaginal examinations; consequently, the necessity for pre-natal care, determining the size of the pelvis, along with the fit of the baby to that particular pelvis, seems all the more obvious.

The last 1/3 of the maternal deaths is due to chronic diseases such as tuberculosis and heart disease, which seem to be aggravated by pregnancy. Surely a careful exam-

ination of the pregnant woman will give in most instances information that will lead to proper treatment of the disease, or to interference with pregnancy, to prevent the mother's death.

To effect the maternal and neonatal mortality rate, it is necessary to establish a program of public education; (1) to arouse the interest of an expectant mother to the accidents and complications of pregnancy; (2) to show her how she can better protect herself and her unborn child from the accidents by early and frequent consultation with a physician during pregnancy; (3) to awaken the husband and expectant father to his responsibility to his wife and unborn child, and to educate him to insist upon his wife having early and constant pre-natal care.

There are many ways of educating the public. The radio would undoubtedly be an excellent medium for reaching a large public and dispensing such information as is deemed necessary. Social service workers and district nurses are of great assistance in the rural districts. Posters, books, and pamphlets written by selected authorities should also be used. Compulsory classes in hygiene in colleges for both men and women, in night schools and young people's organizations, would without a doubt spread the gospel far and wide. The mere contact of the pregnant woman with the doctor may give her a false sense of security, and do harm, unless he really gives her pre-natal care when consulted.

This care should consist, at the minimum, of:

(1) Taking a history, family, personal and obstetric.

(2) Measuring the pelvis either with a pelvimeter or with the trained hand making an internal examination.

(3) Taking blood for a Wassermann test and taking smears when necessary.

(4) Physical examination of chest, heart, abdomen, etc., and recording the patient's weight.

(5) Mapping out the baby for position, size, fit of the presenting part, and heart sounds.

(6) Urinalysis.

(7) Giving advice about food, clothing,

bowels, exercise, mental care, care of the abdomen, teeth, breasts; and, a prognosis both as to herself and the baby.

(8) Instruction about returning for further observation.

(9) Directing treatment and diet for any departure from the normal.

When a good technic for conducting the above examination has been worked out, it will take only a half-hour, at most, and will, if used in all instances, aid in lowering our mortality rate.

PRESENT STATUS OF FEMALE SEX HORMONE THERAPY

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In spite of the possibility in most cases of functional sterility and menstrual dysfunction to accurately classify and diagnose the type by means of special tests, there remains much doubt in the minds of both patients and physicians as to the efficacy of modern hormone medication for such conditions. The reasons for this are obvious:

(1) Interrelation of activity of endocrine glands, and multiplicity of ovarian and pituitary secretions. For example, there are at least 5 ovarian, and as many anterior hypophyseal separate hormones, and differing progressive grades of some of those. Yet, for practical purposes, there are available from the former only the so-called female sex hormone (theelin, folliculin); and from the latter also only 1 substance, namely, anterior sex pituitary hormone (prolan).

(2) Cyclical administration of each of the above is essential.

(3) Potency, of even the best female sex hormone preparations (amniotin—Squibb; theelin—Parke, Davis and Co.; progynon—Schering), is most variable, and always far less than indicated when ready to use; and not stable. Although the anterior pituitary sex hormone extracts (follutein—Squibb; antuitrin—S—Parke, Davis and Co.) approximate the indicated rat-unit content when fresh,

they remain active only for a short time, even when kept cold.

(4) Enormous numbers of units of F. S. H. are often required, particularly for primary amenorrhea, which in contrast to secondary oligo, hypo or a-menorrhea, may not respond at all.

(5) Few patients will withstand the time, expense and trouble involved for complete study, which should include: (a) Basal metabolic reading. (b) Female sex hormone estimation in the blood 1-2 days prior to the expected period, or once a week, for 5 or 6 weeks, for amenorrhea (normals should show 1 mouse-unit per 40 c.c. blood). (c) Anterior pituitary sex hormone estimation, 5 or 6 days after the onset of menstruation (normals should show never more than traces of prolan A, and no prolan B). (d) Pre-menstrual curettage, to discover possible absence of the pre-conceptional endometrium; i. e., deficient luteinization; or "swiss cheese" hyperplasia; i. e., excessive follicular activity as with multiple cysts in the ovary.

For practical purposes, menstrual dysfunction may be considered as of 3 groups; i. e., thyroid, ovarian, and pituitary, corresponding to the classification of functional sterility; the most common expressions being hypofunction, associated with genital hypoplasia in the ratio of about 5%, 25% and 70%.

Types. The obese, "thick skinned", apathetic hypothyroid individual is well known, and needs no discussion, except to emphasize the fact that such persons with basal metabolic rate of only slight deficiency (—10 or more) may have marked menstrual irregularity, which in the case of frequent, prolonged bleeding, responds promptly to thyroxin.

GENERAL DISORDERS

(1) *Ovarian dysfunction.* Primary hyposecretion is disputed, but is suggested by eunuchoid or excessively feminine characteristics (Mazer), normal or scant hair, average weight or thin, nervous instability and fussy disposition, amenorrhea, hypomenorrhea or oligomenorrhea in 50%, with genital hypoplasia. Female sex hormone levels are lower than normal, but there is compensatory over-activity

of the prepituitary secretions, demonstrable by Frank's tests.

Primary ovarian hypersecretion may be expressed by the over-sexed individual showing no stigmas of pituitary over-growth, for which amputation of the clitoris is still frequently urged, but should be always refused.

(2) *Pituitary dysfunction.* Primary hypofunction is associated with characteristic obesity, hypertrichosis, male type of genital hair, stable or slow nervous reactions, increased sugar tolerance (low post-pituitary activity) eye ground changes such as enlarged blind spots, yellowed discs, and reduced visual fields. The female sex hormone is low in such women, but so is prolactin, none of which can be demonstrated. Naturally, impaired genital development and secondary menstrual disorders will occur.

Prepituitary hyperfunction is expressed in most pregnant patients by coarse features, decreased sugar tolerance, headache, etc., and occasionally by the acromegalic type of gynecologic patient, who will ultimately show decreased prepituitary action due to degenerative cell changes. Elevated prolactin level in the blood is additional proof.

TREATMENT

It is unfortunate that genital dysfunction is usually in the form of hypoplasia with undercharged ovarian hormones, for which we can find no very prompt curative agents. However, in spite of warnings from Frank and Rubin, appropriate cases will respond to the following limited agents:

(1) *Female sex hormone.* Great numbers of commercial preparations are labeled with from 10 to 50 rat-units per ampule or tablet, but even the best (theelin, amniotin, and progynon) assay very much less than indicated when ready to use. This discrepancy, plus inadequate dosage, interrelation of other hormones, and failure to choose biologically diagnosed women at the proper phases, are sufficient reasons for the variable results recorded in literature. Mazer advises an amount of sex hormone directly proportionate to the degree of uterine hypoplasia, as high as 500 to 1000 rat-units daily, administered in frequently repeated doses; particularly by mouth.

The Schering Corporation has recognized the value of this method by the manufacture of their newest experimental tablet containing 400 rat-units each, as compared to their present tablet of 50 rat-units; but from 5 to 7 times as much is required by mouth as by intramuscular injection.

Painful menstruation, further assisted by thyroid extract, and menopausal vasomotor annoyance, will also respond to similar treatment, as will frigidity occasionally.

(2) *Luteinizing hormone.* Parke, Davis & Co. (prolan, antuitrin, follutein), and others, have prepared an anterior pituitary hormone from urine of pregnant women (other firms from placental tissue); the former, Friedman has found to contain 100 rat-units or more when fresh, gradually diminishing, but holding a potency of about 80 R. U. per c.c. for 4 weeks or longer. With this preparation Emil Novak, Anspach, and others (including myself) have secured frequent and amazingly rapid relief of irregular functional uterine bleeding, associated with hyperplasia, using 200 R. U. per injection. The quick response proves that a pituitary bleeding factor is involved, but ultimate cure, after cessation of treatment, suggests a correction of ovarian-pituitary imbalance by corpus luteum production.

X-ray treatment. Primary hypoövarism with amenorrhea treated by x-ray irradiation of ovaries alone with from 10 to 15% of a skin erythema dose 3 times only in 2 weeks, and *not repeated*, has changed to regular menstruation and conception in a sufficient number of instances to warrant being included in our list of therapeutic agents. Gynecologists explain this reaction on a basis of "ovarian stimulation", although most roentgenologists will not agree with such explanation. In any event, only an expert radiologist can avoid the real danger of possible permanent ovarian damage under even such mild exposure.

Ovarian irradiation in heavier amounts must, of course, be occasionally resorted to for ovarian hyperfunction, particularly for over-sexed women, puberty and climacteric hemorrhages, etc.

X-rays for pituitary dysfunction: Irradiation of the pituitary gland alone with mild ex-

posure, followed in some instances by similar "stimulation" of the ovaries, may be expected to regulate menstrual flow in 80 to 90% of women and to increase fertility as much as 50% in properly selected individuals. Great caution must be exercised to avoid x-ray exposure of the ovaries and pituitary gland together in primary ovarian failure or in thyroid deficiency.

General measures. Attention to exercise, hygiene, diet, etc., should accompany the foregoing therapeutic efforts, but should not constitute the entire treatment. Frank, for instance, minimizes irradiation and discredits organotherapy, to rely mainly upon a high protein diet for inanition amenorrhea; and upon elimination, occasional venesection, and high calcium feeding for the reduced female sex hormone—increased prepituitary secretion syndrome at menopause. On the other hand, in the management of hyperfunction, the same authority, feeling that puberty metrorrhagia is usually self-limited, prefers in addition to repeated D and C or reducing irradiation if needed, rest, fresh air and sun, tonic diet and occasionally transfusions; reserving for a separate group (premenstrual tension) limitation of fluids, calcium feeding, and elimination by caffeine and saline purgatives.

With respect to the effect of limitation of fluids upon menstruation, Temple Fay has repeatedly called my attention to the usual suppression of menstruation following his original method of fluid reduction to 30 oz. total per day, or less in cases of increased cerebral pressure, and I have observed a tendency to this effect with similar restriction in certain cases of menorrhagia.

Finally, the necessity for vitamins, particularly "E", and for minerals, including manganese (McCullum), should not be forgotten.

Summary. Actual rat units of female sex hormone in large amounts, preferably injected once or twice daily pre-menstrually or monthly, may be expected to correct:

- (1) Secondary menstrual deficiency.
- (2) Surgical or natural menopausal instability.
- (3) Painful menstruation of certain types.
- (4) Hypogenitalism.
- (5) Certain cases of hemophilia.

Anterior sex pituitary extract injected post-menstrually or monthly in courses, no less than 200 R. U. daily will control irregular excessive functional uterine bleeding promptly and more or less permanently.

Both should be used for "mixed" hypogenitalism in functional sterility, where x-rays fails to relieve.

TREATMENT OF THE LATE TOXEMIAS OF PREGNANCY

EDWARD G. WATERS, Ph.B., M.D., F.A.C.S.,

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A discussion of treatment pre-supposes satisfactory diagnosis. Satisfactory diagnosis infers cognition of etiology. It is regrettable that we know almost nothing of the etiology of late pregnancy toxemias and, because of this disadvantage, are often unable to disunite the component symptom-groups which constitute the "late pregnancy toxemias" with whose treatment we are at the moment concerned.

The late pregnancy toxemias constitute the greatest menace to the pregnant woman, because they are the most common of the major threats encountered in the last trimester of pregnancy. Excepting placenta previa, accidental hemorrhage, and progressive cardiac disease, there is none which causes the attending physician more disquietude.

Some of the nephritic conditions, which constitute the more numerous of the late pregnancy toxemias, are discernible as threats early in pregnancy. They are devisable into 3 groups, 2 of which are readily recognizable; namely, chronic nephritis with hypertension but without edema; and chronic nephritis with edema, and the so-called "nephrosis" of pregnancy or "low-reserve kidney".

Chronic nephritis is seen most frequently. I prefer to include here the "low reserve kidney", since the only manner of differentiation consists in the response to therapy and the absence of signs of progressive renal degeneration. Since chronic nephritis is responsible

for more premature and still-born infants than any other condition, barring syphilis, and since each succeeding pregnancy causes exacerbation and marked aggravation of the condition, it is desirable to consider this group first.

Chronic nephritis with hypertension but without edema, is characterized by polyuria of low specific gravity, nycturia, high blood pressure, and findings indicative of chronicity; e. g., cardiac hypertrophy, retinal hemorrhages and sclerosis, and retention of blood metabolites, often to a high degree. The urine may show little albumin until late in pregnancy, but the condition is often known before pregnancy occurs, and is usually recognizable early in pregnancy. In the second type, where edema is the outstanding symptom of the nephritis, blood pressure seldom reaches the level of the type above mentioned. It tends to parallel the degree of toxicity, although it is always elevated. The urine is of high specific gravity, and loaded with albumin and casts. It is well to remember that less than $\frac{1}{2}$ of all nephritic conditions complicating pregnancy show any increase in blood chemistry findings, and frequently the uric acid alone is above normal.

The treatment of nephritis of pregnancy is dependent upon its degree and type, the period of gestation, the parity of the patient, and existing complications. It is impossible to separate accurately mild chronic nephritis with edema from the low-reserve kidney or nephrosis of pregnancy. Therefore, they are treated alike. Rest in bed for 2 or 3 weeks, a diet so restricted as to allow only the basal protein requirements, salt intake restricted, or the salt-free diet according to edema present, and forced fluids constitute the therapeutic regimen. Any diuretic may be used to hasten diuresis; theobromine, sodium salicylate in 5 to 8 gm. doses, ammonium chloride, salyrgan, and metaphyllin, possibly being the most effective. This regimen applies only to the mild form of nephritis. If the strain of pregnancy further encumbers a patient with marked chronic nephritis, and kidney deficiency is manifest *early*, hysterotomy and sterilization, or therapeutic abortion, adequate contraceptive advice, and medical care for

chronic nephritis constitute the only sensible or defensible measures to advise or offer.

If the chronic nephritis becomes evident later in pregnancy, we are upon debatable ground. If the patient is a primipara, intervention may be postponed until the fetus reaches viability; in the meantime utilizing the medical care mentioned. The kidney of a primiparous nephritic can stand a pregnancy better than that of a multipara. The more pregnancies a nephritic multipara has survived, the less chance has she in the ensuing one. Every additional pregnancy accelerates development of the disease, and symptoms become more malignant and appear earlier. The chances for premature labor, intra-uterine death of the fetus, and separation of the placenta, are so great that little consideration need be given the fetus.

If the nephritic symptoms become marked when the fetus is viable, one of several avenues of relief may be apparent. In elderly primiparas, cesarean section when past the eighth month; in young primiparas, with no pelvic contraindications, and in multiparas, induction of labor by medical means or with Voorhees' bag; where there is history of previous intra-partum death of the fetus, cesarean section at 8 to 8½ months.

There is one group which excepts itself from the above, and that is the hypertensive group without symptoms. Patients seen early in pregnancy with marked hypertension, often reaching 200 mm., may be carried to nearly term before induction is used. In elderly primiparas cesarean section is preferable, while in others more conservative measures may be employed.

If the patient elects to chance the pregnancy, in spite of advice, she should be put to bed and treated for her nephritis until she aborts a dead fetus, dies, or approaches term. There is little sense and less glory in waiting until Providence intervenes with an intra-uterine fetal death, when the patient is 6-7 or 8 months pregnant; she should be protected from invalidism and a chronic, debilitating state by early intervention. In the severe nephritics, the shorter the duration of pregnancy, the longer the duration of life. In any case, and despite any interference or lack of

it, one should remember that the prognosis for the immediate life of the mother is good, and for the life of the baby, is bad. The ultimate prospects of maternal life are, therefore, our greatest concern.

Preëclampsia is a toxemic disturbance of the late months of pregnancy, characterized by rise of blood pressure, albuminuria and edema. It is the harbinger of eclampsia, in which it inevitably terminates if not sufficiently controlled. Its time of occurrence is after the sixth month, especially in the last 10 weeks; affects primigravida; occurs especially in the winter and early spring; and is frequently associated with abnormal fetation. It is far less common than the other late toxemias; incidence varying from 1 in 400 to 1 in 1000 pregnancies. It is characterized by an acute onset, in a patient with previously good history and physical signs. The blood pressure is lower than in nephritis with hypertension, and seldom exceeds 200 mm. The *diastolic pressure* is more important than the *systolic*, and frequently rises as high as 140 mm. or more. A diastolic consistently above 90 mm., without any other signs or symptoms in the last trimester of pregnancy, needs careful watching. The prodromal symptoms are confined mainly to 4 systems—the excretory, circulatory, nervous, and digestive—and the symptoms emanate from these systems in the order named.

First, there is a diminution in the 24 hour excretion of urine; increase in albumin from none to 8 or 10 gm. per liter; high specific gravity; constipation; diminished skin excretion. Almost simultaneously, there is heightened blood pressure; edema of extremities, face, and back, independent of posture; and vertigo. Then follow nervous symptoms, with malaise; frontal and occipital headaches; diplopia or amaurosis; neuralgic pains; nervousness; restlessness; irritability; and apprehension. Finally come the digestive symptoms, epigastric pain and vomiting. These are the final prefatory reminders that eclampsia is at the door. I have hazarded prolixity in the rehearsal of these details, because the intensity and success of treatment is largely dependent upon the stage at which they are detected.

It is important to differentiate preëclampsia from the severe forms of nephritis, for the treatment and methods of procedure regarding the uterine content differ *radically*. Suffice to say that the enlarged heart, peripheral sclerosis, albuminuric retinitis and retinal hemorrhages, increased blood metabolites, and excessively high blood pressure readings, frequently associated in nephritis, are absent or modified in preëclampsia.

Most important in the care of patients are prophylactic measures which aim at early detection; frequent blood pressure determinations; constant check on monthly or weekly weight increment; frequent urinalysis, to reveal early renal insufficiency, prompt investigation of any visual disturbances, abdominal symptoms, or digestive disturbances.

At the first sign of toxemia, the patient is to be given bed rest; a low salt, low protein, or exclusive milk diet ordered; and the fluid intake raised to 6 liters daily. If the symptoms increase, the large intestine is cleansed by enemas and high colonic irrigations daily, and I usually order 1 oz. saturated solution of magnesium sulphate every 4 hours until there is free purgation. Sedatives are used freely, a personal favorite being 20 gr. chloral hydrate and 40 gr. triple bromides by rectum, every 3 or 4 hours. A little starch or a few drops of laudanum overcomes any difficulty of retention; and 1½ gr. of luminal twice a day is useful.

Under the above regulations, most patients improve and the condition abates. Unfortunately, all do not respond favorably, and in spite of most vigorous treatment, progress into eclampsia if pregnancy is not terminated. The treatment of preëclampsia when its progress is unchecked, is induction of labor by cervical packing, bougie or Voorhees' bag, or termination of pregnancy by cesarean section, depending upon parity, age, condition and estimation of cephalopelvic adaptation.

If eclamptic seizures have supervened, the patient is immediately given ¼ to ½ gr. of morphine hypodermically, and 10 c.c. of a 25% solution of magnesium sulphate intravenously; to be followed by 50 c.c. of 50% glucose. The morphine diminishes cerebral irritation and depresses the sensorium below

a receptive state for peripheral stimuli; the magnesium sulphate, by its hypertonic action, decreases cerebral edema, and by lessening pressure-anemia of the regulating center permits the blood pressure to fall 20 to 40 points. The convulsions stop and there is increased diuresis. Glucose abets this action of the magnesium sulphate and, in addition, increases the resistance of liver cells to eclampsia toxin by supplying glucose to the maternal blood. It is well known that glycogenolysis is nearly always arrested before there is any hepatic damage by toxins, and glycogenolysis nearly always proceeds while there is available glucose.

The injections are repeated hourly *if necessary* until 6 have been given. Rectal instillations of sedatives are given, as mentioned before and morphine repeatedly given every 4 hours. If the patient regains consciousness and is not in a pre-convulsive state, 2 valuable procedures follow. The first, is gastric lavage with 5% sodium bicarbonate solution, leaving in 500 c.c. with 2 oz. of saturated solution of magnesium sulphate. The second, is cleansing of the large bowel by an enema and high colonic irrigations. The former prevents regurgitation and insufflation of gastric content, and possible gastric dilatation; and the latter promotes bowel elimination and stimulates renal secretion.

Venesection is seldom of value or needed, for pulmonary edema and circulatory collapse are better overcome or prevented by intravenous magnesium sulphate and the use of 25% glucose solution in 50 to 200 c.c. amounts. A word of caution in this day of intravenous onslaughts: Don't overtax an already overburdened and weakened cardiocirculatory system with large intravenous injections.

It is hardly necessary to speak of the local

measures used to protect the patient during the convulsive seizures. With the above treatment, convulsions should cease and consciousness return. Where coma deepens, especially with a hyperpyrexia and evidences of peripheral circulatory collapse, a fatal outcome is inevitable. Autopsy in these cases usually reveals extensive cerebral hemorrhage, with the usual liver changes.

When the patient has recovered consciousness and the convulsions are controlled, what is the next move? This depends entirely upon the stage of gestation, the estimation of pelvic factors and parity bearing upon delivery, and the knowledge that after a temporary improvement lasting a few days, the majority of these patients have a recurrence with rapid progression of symptoms.

In any case, once the condition is under control it is wise to induce labor. When the cervix is partly dilated or retracted and the pelvis ample, induction with a bougie or Voorhees' bag is in order. Accouchment force is contraindicated in any and all cases, for if the patient's condition is so extreme as to need it, then such intervention is nearly always fatal. If the patient is a primipara with a long hard cervix, or with a borderline pelvis and a viable baby, a low-segment, transperitoneal, cesarean section, performed with local or spinal anesthesia, is best. If the patient has begun labor while in the eclamptic state, no obstetric intervention should be attempted until she has completely recovered from the effects of the convulsive period. The *worst possible procedure*, and the most deadly affront to the unconscious, convulsive eclamptic is a cesarean section performed under general anesthesia. The next worse, is forcible delivery, which in these exhausted, apprehensive, easily infected women, generally serves only to terminate life.

EARTHY THINGS

I like the pungent smell of earthy things—
A meadow, and a plowed field after rain;
A wine-red patch of clover always brings
The feeling I am nearing home again.
I like the ancient smell of burning wood . . .
The musky essence of old cedar trees—
Upon a lonely sand dune I have stood
Sniffing the breakers from a thousand seas!

From every corner of the world they blow,
Drifting like incense to a deity . . .
They wake my laggard senses—and bestow
A redolence upon my memory.
Primeval odors . . . I have loved since birth—
Created when God made the fragrant earth!

—By Gene Boardman Hoover

RECENT ANNUAL MEETING

It is a distinct pleasure to feel that in this topic we have something about which we may write in glowing and enthusiastic words of praise; for, with *depression* in the air, psychologically speaking, most recent happenings have suffered its devastating influence and shown the effect of its corollary—*pessimism*. Not so, the convention of our “ancient and honorable” Medical Society of New Jersey which, celebrating the 166th anniversary of its birth, exhibited the “vim and vigor” of youth and spoke in terms of *optimism* only. From beginning to end—thanks to those responsible for the program and, consequently, for the tremendous drawing power of its many attractive features, and to those who responded to the call for attendance, and, with an unusual degree of interest and energy, participated in the proceedings—the dominant characteristics of this most recent Annual Meeting may be best expressed by use of words or phrases such as “bigger and better”, “excellent”, “progressive”, and “forward-looking”. Superlatives, yes, but indicating, truthfully and without exaggeration, satisfaction with accomplishments of the past and encouragement to those whose duty it will be to “carry on” as heretofore.

Once only, and then for but a fleeting moment, did “depression” show itself. Under pressure from a few misinformed members, the Committee on Finance and Budget was persuaded to recommend: cutting the Journal; slashing the several budgets handled through the office of the Editor and Executive Secretary; and, complete abolition of the office of Field Secretary and of our public educational program; all being retrograde movements, suggested in the names of “economy” and “depression”. However, the majority of members realized that it would be wasteful to abolish the office of Field Secretary and sacrifice the educational program just at the moment when 5 years of work, and a considerable sum of money invested by the Society, had brought about a splendid fruition; and that it would also be wasteful of 7 years’ work by the Editor, to have the Journal rendered impotent just when it had won nation-wide recognition as a worthy member among State Society Journals. Further, the Treasurer’s Report indicated no crying need for economy. *Despite* the fact that a rebate of \$2 each had been returned to members during the year, and all financial obligations had been settled, the cash balance in the Society’s treasury at the close of the fiscal year was *greater* than usual. So, with such a record for the past year, when

the House of Delegates was afforded an opportunity to voice the will of its members, and of their constituents, as to what disposition should be made of the recommendations previously mentioned, the ghost of old man “Depression” was routed to the tune of 59 to 20.

Probably the most important event of the Convention was the adoption—with but 1 dissenting vote—of a plan for recognition and certification of specialists among our own members. The Waters’ plan, introduced at the meeting of 1931, having been carefully studied during the year, and modified in some respects, under the supervision of President Hagerty, is, in our opinion, one of the finest and most progressive steps any medical society has taken in recent years. We have no hesitancy in predicting that it will stand as a monument to the presidential leadership of John F. Hagerty and to the foresight of Edward G. Waters. It is a simple plan, easily workable, and must succeed. It will spread to other states, as its worth is proved by the state which has the temerity to make the test. Of course, this plan had its origin in, and is, in fact, but an adaptation of the plan first devised by John A. Hartwell and submitted in his Presidential Address to the New York Academy of Medicine, in 1930. But, if it works as we hope and expect, there will be sufficient glory for everybody concerned.

In the matter of attendance, previous records were broken; the registration figures showing 525 members present.

The scientific program met our expectations in full, and we shall from that source acquire approximately 60 original articles for publication in the Journal. The Sections continue to justify their establishment, and their programs were quite up to standard, if not better than in previous years. Section meetings do, unquestionably, draw members away from the General Sessions, but that disadvantage is more than offset by the fact that they entice specialists to attend the convention, and they supply the needs and satisfy the desires of many members.

The Scientific Exhibit, set up this year for the first time, was excellent and we hope to have it described for Journal readers by somebody better able to deal with it properly.

The Woman’s Auxiliary, too, is said to have had a thoroughly satisfactory meeting.

We have spoken here of the Convention’s *high lights* only. The complete report will reach our readers in the form of a supplement to the September Journal.

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Each member of the State Society is entitled to receive a copy of the JOURNAL every month. Any member failing to receive the paper will confer a favor by notifying the Chairman of the Publication Committee of the fact.

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CENTENARY OF THE BRITISH MEDICAL ASSOCIATION

Anent the question of antiquity, we were greatly surprised recently to learn that the British Medical Association is only 100 years old; so frequently writing the age of this state society, attaining its 166th anniversary of birth this month, and also conscious of the greater age of the British College of Surgeons and College of Physicians, we assumed, rather than thought, that the association was in the same age-class.

The item which had attracted our attention appeared in the New York Medical Week, January 2, and is now being reproduced here because of the several interesting topics accompanying the main one—that of age—to which we have just referred:

BRITISH MEDICAL ASSOCIATION CENTENARY

The meeting of the British Medical Association which is to be held in London, July 24 to 30, 1932, marks the hundredth anniversary of the founding of that body.

As a means of promoting the "respectability" of the profession, Dr. Charles Hastings, later Sir Charles, founded the "Provincial Medical and Surgical Association" (later called the "British Medical Association"), at Worcester—London had not yet spread over all of England as it has since done, and the provincial towns were important in themselves. The status of the physician at that time was doubtful, to say the least. The Apothecary Act had been passed in 1815, which was the first legal curb on the practice of medicine, but it was not until 1858 that Parliament passed the Medical Practice Act.

The year of the founding of the Association was one of the high spots in English history. The Reform Bill was passed in the same year, as was the Anatomy Act, which put an end to "body-snatching" and its scandals.

The first epidemic of Asiatic cholera broke out in this year, finding the medical profession unequipped to cope with it, and meeting with hostility from the public. Cholera hospitals were

burned down; patients were removed from the care of physicians who attempted even a degree of quarantine; hearses carrying the bodies of those who had died of cholera were attacked and destroyed.

Tennyson's first volume of poems was published that year, and a few days before the year began, Charles Darwin started on that 5 year voyage in the *Beagle* which led to such momentous developments in natural science.

England was just emerging from a serious depression following the long series of wars with France and her allies, and the British people were full of creative and inventive energy. May one not hope that the centenary celebration of this association will mark the return of a cycle of prosperity such as its inauguration heralded?

Although London is to be the scene of the congress, on Sunday, July 24, the centenary meeting will be held at Worcester. The Dean of the Cathedral has invited members of the congress to attend a special memorial service at the cathedral; at which time a stained-glass window to the memory of Sir Charles Hastings will be unveiled. Lord Dawson of Penn, the President-Elect, will close the proceedings in his Presidential Address.

Some of our readers may be interested to learn that the Editor of this Journal has been appointed a Delegate (1 of 3) from the American Medical Association to this Centennial Celebration of the British Medical Association; President Cary, accepting the invitation to name 3 Delegates to represent the medical profession of the United States, having chosen Drs. George H. Simmons, Edmund Horgan and Henry O. Reik.

This fact was announced in the House of Delegates during the Annual Meeting in Atlantic City and a resolution was at once proposed and adopted, authorizing us to present, to the celebrants of the Centenary, the compliments and good wishes of the oldest medical society in these United States of America, which, itself, was organized (June 27, 1766) by a group of 14 practicing physicians, all but 1 of whom were of British descent.

ECONOMIC PROBLEMS OF THE MOMENT

In this issue of the Journal we present several items of economic import. "The County as a Unit for Public Health Service", by Dr. Mountin, himself serving in our national health bureau, is a timely explanation of the evolution of public health organizations, and may fittingly be read in connection with the proceedings of the Tristate Medical Conference at which that subject was rather thoroughly discussed. Governor Roosevelt, shortly after his inauguration, appointed a special commission to study existing conditions and public health laws, and to make recommendations as to possible improvements. When the Commission's Report was made public, one of the most important questions concerned reorganization, based upon use of the County as a Unit. As the medical profession was, in this matter, deeply interested, a special committee was appointed from the State Medical Society to make a careful study of the Commission's Report, with particular reference to the newly proposed county unit system. By assignment of members from both the Commission and the Committee, a so-called *Joint Committee* was formed, and the subject under discussion at the Tristate Conference was the report of the Joint Committee.

Another important article in this month's Journal is that of Dr. Baketel, entitled—Some Factors in State Medicine. Whether, as many prominent members of the profession believe, legislation in the line of Compulsory Health Insurance is imminent in this part of the world; or, as the more conservative—perhaps we should say, more complacent—members believe, such legislation is not likely to secure a foot-hold here in the near future; we certainly have nothing to lose by giving serious thought to such matters now, and we may ultimately profit to a considerable degree if we make good use of this quiescent period by studying the problem with a view to preparedness; equipping ourselves to meet the issue if and when it arrives, and possibly finding meanwhile some solution that will be to all parties concerned—satisfactory.

We are heartily in accord with Dr. Baketel's statement that: "I believe, absolutely and firmly, in organized medicine, and for years have been advocating the doing of things for ourselves. Physicians, alone, can work out the physician's problems. They are—the captains of their own souls'." If we devote proper attention to these matters, ascertain what the people are seeking and why, and then consider to what extent they are justified in their criticisms of the profession and whether or not their demands are reasonable, we feel confident that a proper solution of the things that now appear so difficult would readily be found.

Dr. Baketel discusses some features of *state medicine*, and does it with as nearly as possible an unbiased, unprejudiced mind; and anybody who has ever engaged in a discussion of such questions will admit that it is no easy matter to prevent prejudice from entering into the argument. We congratulate him upon this showing of ability to take and maintain a perfectly fair attitude toward this problem. But, that does not mean that we agree entirely with all that he has said. We found a few statements to which, were we engaged in a debate, we would take exception, but we feel sure they were based upon a misunderstanding of the facts. For instance, when dealing with the British law, he defined the phrase *capitation fee* as meaning the *fee paid* the doctor *for treating a panel patient*; whereas, in the manner used in that law, it means the fee paid for *each person on his panel* (each of them being *potential* patients only), whether treated, or not, at any time during the year for which that capitation fee was set. That is to say, a panel doctor may have 1000 names on his panel but that does not mean 1000 patients unless all of them become ill and, consequently, patients. We would also question the dependence he places upon the book published by Lick, concerning conditions in Germany, for, bad as those conditions are, Lick, undoubtedly, exaggerates. However, such minor criticisms are of small import, in view of the general excellence of the paper and we heartily commend it to your careful consideration.

Economics

DISPENSARY SERVICE IN NEW YORK CITY

Report of Committee on Economics

(From N. Y. Medical Week, April 30, 1932)

A regular meeting of the Committee on Economics, of the Medical Society of the County of New York, was held Thursday afternoon, March 17, 1932.

Dr. Howard C. Taylor, Jr., submitted the following report:

(1) In the last 10 years the number of visits made to the dispensaries of New York City have almost exactly doubled. The actual figures show an increase from 2,783,147 in 1920, to 5,624,251 in 1930. The increase was greatest in municipal general hospitals but amounted to approximately 100% in private general hospitals. The financial depression appears to have had the effect of accelerating this process, as indicated by a study of the figures for the year 1930 as compared with those for 1929. Statistics are not yet available for the important year 1931.

(2) The percentage of the population upon which the medical profession can base its support has been steadily diminishing. Estimates are that 16.3% of the city's population in 1920 depended on the clinic for its medical attention; while in 1930, this had risen to 26.7%. The conclusion can scarcely be avoided that this shift of 10% of the city's population, from the paying to the free class, has affected medical income.

(3) Demands for the doctor's free services have increased in proportion to growth of the clinics, and over twice as many physicians were working in the clinics in 1930 as in 1920 (5,308 as compared with 2,318). The absurdity of the situation is best seen when it is remembered that in 1930 the public was demanding, and the medical profession was consenting to give, free service to 10% of the city's population which in 1920 had been a means of medical support.

Calculated on either the rate of \$1 a visit or \$5 an hour, the medical profession was, in 1930, contributing to the public welfare in dispensary work alone \$5,000,000, or about \$2,500,000 more than 10 years previously.

(4) The principle, of paying salaries to dispensary physicians, is not unknown. Of the private general hospitals on Manhattan Island, roughly $\frac{1}{4}$, and of the private special hospitals, $\frac{1}{2}$, pay one or more of their medical dispensary staff for his services. Scattered

through the dispensaries of the municipal hospitals of the Greater City, 70 doctors are already working on a salary. In addition to these definitely on a salary, there are certainly some others, less easily classified, who are working in clinics as part of a salaried teaching or research position. Thus, the principle of payment in dispensaries is not a new thing, although the number of those on salary, approximately 200, is pitifully small compared with the 5000 working without recompense.

(5) The last decade has witnessed not only an increase in the number of dispensary patients, but also in many clinics an increase in the charges for admission, and an increase in profitable laboratory procedures. It is my impression that many hospitals have actually improved the financial position of their outpatient departments. In the dispensaries where this is true it is a special injustice that none of this financial improvement has filtered down to the physicians actually doing the work and from whose offices many of the patients may have originally come.

(6) The members of the Economics Committee are aware of the practical difficulties of finding funds for the payment of physicians in dispensaries, particularly under present financial conditions. At the same time it must be remembered that it is under these conditions that the doctor, also, is unusually hard pressed by the necessary reduction in fees, by failure to collect bills and, a fact to be emphasized, by the loss of an increasing number of patients to the dispensaries.

Esthetics

THE LONG BROWN PATH

A New Interest Makes a New World

Raymond H. Torrey
New York City

(Without having ever joined a "Hiking Club" or any other type of organization concerned with out-of-doors interest, the Editor has independently followed many of the recommendations and suggestions emanating from such clubs, and has thereby profited considerably. The pleasure and entertainment, to say nothing of the health benefits, derivable from long tramping expeditions into the country are quite beyond computation. To those who love the country—its woods and streams, the ever-changing sky, the birds and flowers, open roads, narrow paths or secluded dells, sunshine or shadow—just the thought of being a *tramp*, careless and free,

is sufficient to arouse the desire to follow the leader on the "long brown path"; and we take pleasure in offering, voluntarily, a recommendation of Mr. Torrey as a leader—indeed a leader with probably many more followers than he dreams, for there must be many hikers and tramps de luxe who look for his suggestions and directions as we did during 4 years of residence in New York City. Frequently (whether regularly, or not, we never inquired) the New York Evening Post contains a letter of his, describing some attractive tramping expedition, and sometimes inviting any who care to do so to fall in with a group under his guidance from a certain point at a given hour. We learned to look for his messages in the Friday issue of the Post, and it was in some measure due thereto that we spent so delightfully our Saturday noon to Monday hours and covered on foot much of Long Island and all of the territory contiguous to New York City, as far north as Poughkeepsie on the east, and up to and including the Catskill on the west side of the Hudson River.

Our own special hobby linked with the tramping was photography; you may prefer searching for wild flowers, studying botany in a broader sense, or have a stronger interest in geology. Mr. Torrey offers a new reason for becoming a scholarly tramp, in the following communication clipped from the New York Evening Post of April 15, 1932. (Ed.)

A new interest in some hitherto unknown form of natural history makes a new world for the hiker of his old, familiar trails. Some phase of botany, geology, bird or animal life, which he may be inspired to add to his previous outdoor interests, makes every trail, every mountain, forest and swamp a new and entrancing place to him, as alluring as if he explored a new land.

Such has been the experience of the writer in a newly developed interest in the study of lichens in the past 2 years. The old friends, among the trees, flowers, ferns and mosses are there just the same and one recognizes them with renewed enjoyment. But among them, everywhere now, are these strange new plants, beautiful, mysterious, bizarre, strange in many ways and so different from other forms of vegetation. Where they had been noticed only in a general way before, without recognition of their unusual character, a symbiotic association of fungi and algae, 2 kinds of plants known before in their separate lives, now their genera and species and the varying forms of many species present themselves to the eye, and in even greater richness with the aid of a hand lens.

Our environs are very rich in lichens, out a little way from the crowded metropolitan districts. A few sickly individuals survive even in some of the outlying city parks, but they are happier in more unspoiled country. The invasions of agriculture, if regularly practiced, of industry, timber cutting and fires, lessen their number and variety, as with other wild things.

But where the hand of man has not been too heavy, or where its weight upon natural conditions has been relaxed by the abandonment of farm land, pasture and forest to the slow recapture by native species, there will be found the lichens. And they are not mixed or overwhelmed, as so many of our native flowering plants are, by introduced weeds. The methods of reproduction of lichens, by distribution of their soredia or granules on the thallus, which may start new plants, or by breaking away of pieces of the plant tissue, or by the spores, are so limited in their spread, that there are no "weed" lichens, although there are many genera and species that are cosmopolitan, but we must attribute that fact probably to geologic causes, to their extension in former periods across continents which spanned our present oceans and included some parts of present continental masses.

With a new interest like this, every hike over some trail found years ago and many times enjoyed for other things, becomes a new pleasure for the specimens of this new and strange kind of plants which present themselves on every hand. One might have noticed the plentiful covering of the ledges in the Highlands of the Hudson, by the leathery rock tripe, but when one finds how many species there are, great and small, and how they differ, it is a new outdoor satisfaction. And what is visible to the naked eye, on first glance, is not all; closer examination with a hand lens of moderate magnification will reveal other lichens, tiny crustose forms, with delicate, beautiful disks, saucers, cups, vases, or organs of more fantastic shapes, difficult to describe; all of the varied reproductive paraphernalia of these alga-fungus partnerships.

The pine and oak woods and cedar swamps of the Pine Barrens of South Jersey, long enjoyed for their unusual flowering plants, become a still richer field for study when their lichens are even partly known. The dead logs in these swamps are rich with hundreds of strange and beautiful forms, in the richest expressions of their types, with ample development, perhaps because of persistent moisture and a suitable balance of shade and hot sun, of their spore-bearing or-

gans which give the character and identification to the species.

The mountain tops in Bear Mountain Park, the highlands of Northern New Jersey, and the Shawangunks in New York give rare forms, found in the far north in plenty, but here only on such high boreal islands, whither they have retreated even as some higher plants have done, after the melting away of the last continental ice sheets. The Catskills are rich in lichens, with their dense, moist forests, and the Adirondacks and the New England mountains are still richer. Every trail and climb that one has enjoyed in other years, for other things, will be a new pleasure for this hiker as he goes over them anew for this additional phase of nature study.

Collateral Reading

THE HUXLEYS IN BIOLOGY AND LITERATURE

During the past few months we have been so completely immersed in the routine work of the State Society, which must be carried on between hours of editorial labor, and Journal space has been at such a premium, if you please, that our non-medical reading has been seriously neglected. With that explanation, and with an apology to those members who have flatteringly inquired about the absence of these contributions, we are pleased to return to this Department and to direct your attention to some of the recent literary offerings.

Two books—"Brave New World" and "What Dare I Think?"—drew our attention by the names of their authors, rather than by their titles.

Medical men have more than one reason for an interest in the work of both of Thomas Huxley's grandsons, Julian and Aldous. Julian is now-a-days telling us fascinating facts about biology in a fascinating way; while Aldous is writing brilliantly satiric novels. The latter's latest production, *Brave New World*, is a story of a world of the future, "Model T Utopia", where such fantastic, old-fashioned ideas as motherhood, monogamy, romance, and home-life have been abolished, and the Bible has been replaced by "My Life and Work, by Our Ford—or Our Freud, as for some inscrutable reason, he chose to call himself whenever he spoke of psychologic matters". In this "brave new world", the very thought of viviparous mothers makes one blush. Babies are gestated in bottles, and conditions in childhood for their pre-determined careers as factory workers, inventors, actors, waiters, business men, professional men, or scrub-women. Here, for example, is a description

of the conditioning of future factory hands to a hatred of beauty:

"Bring in the children", ordered the Director of the Central London Hatchery and Conditioning Center.

The nurses hurried out of the room and returned in a minute or so, each pushing a kind of tall dumb-waiter laden, on all its 4 wire-netted shelves, with 8-month-old babies, all exactly alike (a Bokanovsky Group, it was evident) and all (since their caste was Delta) dressed in khaki.

"Put them down on the floor."

The infants were unloaded.

"Now turn them so that they can see the flowers and books."

Turned, the babies at once fell silent, then began to crawl toward those clusters of sleek colors, those shapes so gay and brilliant, on the white pages. From the ranks of crawling babies came little squeals of excitement, gurgles and twitterings of pleasure.

The Director rubbed his hands. "Excellent!" he said. Then, "Watch carefully", he said. And, lifting his hand, he gave the signal. The Head Nurse, who was standing by a switch-board at the other end of the room, pressed down a little lever. There was a violent explosion. Shriller and ever shriller, a siren shrieked. Alarm bells maddeningly sounded. The children started, screamed; their faces were distorted with terror.

"And now", the Director shouted (for the noise was deafening) "now we proceed to rub in the lesson with a mild electric shock. * * * They'll grow up with what the psychologists used to call an 'instinctive' hatred of books and flowers. Reflexes unalterably conditioned. They'll be safe from books and botany all their lives."

So, all day long, batch after batch of babies are conditioned to their futures, in order to make their lives emotionally easy, "to preserve them, so far as that is possible, from having emotions at all". Into this "Model T Utopia" is introduced an American Indian, a *savage* from the unregenerate world, whose education was derived from nature and a volume of Shakespeare, and who is the child of that shameful thing—a viviparous mother. His invitation to view the Utopia is extended as an experiment by the super-scientists of the new world. It fills him with anticipation, and causes Miranda's words to ring through his head: "O brave new world, that has such people in it. * * * O Wonder! How many goodly creatures are there here! How beautiful mankind is!"

One of the most amusing descriptions is the Savage's first visit to a *Feely*—"Three Weeks, in a Helicopter, An All-Super-Sing-

ing, Synthetic-Talking, Coloured, Stereoscopic Feely, with Synchronized Scent-Organ Accompaniment."

"Take hold of the metal knobs on the arms of your chair", he was instructed. "Otherwise, you won't get any of the *feely* effects."

The Savage did as he was told.

There were 10 seconds of complete darkness; then, suddenly, dazzling and incomparably more solid-looking than they would have seemed in actual flesh and blood, far more real than reality, there stood the stereoscopic images, locked in one another's arms, of a gigantic negro and a golden-haired young brachycephalic Beta-Plus female.

The Savage started. That sensation on his lips! He lifted a hand to his mouth; the titillation ceased; let his hand fall back on the metal knob, it began again. The scent-organ, meanwhile, breathed pure musk. Expiringly, a sound-track super-dove cooed—"Oo-oo"; and, vibrating only 32 times a second, a deeper than African bass made answer: "Aa-aah". "Ooh-ah! Ooh-ah!" the stereoscopic lips came together again, and once more the facial erogenous zones of the 6000 spectators in the Alhambra tingled with almost intolerable galvanic pleasure. "Ooh . . ."

But the brave new world for which Shakespeare had prepared the poor Savage was a very different world from the Model T Utopia. The Savage becomes more and more disillusioned and puzzled and despairing, and the book ends on a note of despair. In the final, tragic scene, the Savage is driven to self-destruction by the standardized mob, which has found his emotional reactions to its unemotional world a source of infinite amusement.

WHAT DARE I THINK

Where Aldous Huxley sees the world through the eyes of the novelist and with a tinge of pessimism, his brother Julian sees it through the eyes of a biologist and with a tinge of optimism. Both see man in perpetual conflict with the science he has evolved from his own thinking.

Julian Huxley is now lecturing on Experimental Zoology, at King's College, London. His small volume is made up of several lectures, most of which were delivered before the Henry La Barre Jayne Foundation, in Philadelphia, during January 1931. In chapters on such subjects as "Biology and the Physical Environment of Man", "Biology and the Human Individual", "Man and His Heredity", "The Conflict Between Science and Human Nature", "Science and the Future Religion", he sets forth the challenge of modern science to human action and belief, examining religion

and man through the microscope of a modern biologist.

Just as to *some* the Utopia which Aldous Huxley pictures will prove shocking or frightening, so to *others* the answers Julian Huxley gives to the question which forms his title will prove shocking or frightening. Yet, thinking men and women cannot well afford to ignore the opinions of such writers as these, and it is interesting to read these 2 books in conjunction, one with the other, for, where Aldous Huxley leaves us with a depressing picture, Julian Huxley presents one that is inspiring. To those of us who take up his volume without fear or prejudice, he affords mental stimulation, exhilaration, and a new conception of life's possibilities. Far from being an attack on religion, his book views man's capacity for religion as a great driving force which is now being dissipated and lost to the world, but which, properly harnessed with science, could—and some day probably will—produce many fine and beautiful things.

In Lighter Vein

First Aid!

"Have you given him anything or done anything to relieve him?" asked the young doctor, who had fared far into the backwoods to see a patient in the dead of a stormy night.

"Well, no, doc—that is to say, nothin' to speak of", said the wife of the patient. "I had him soak his feet in almost b'ilin' water with a lot of mustard in it, an' I clapped a red-hot plaster on his back, an' another one on his chest, an' I've put a couple of blisters I had in the house under his arms, an' a bag o' cracked ice on the back of his neck, an' had him drink a pint o' ginger tea with a dash o' rum in it jes' as hot as he could swaller it, an' I follered that with some yarb bitters one of the neighbors sent over, an' I had him take 5 or 6 pills out of a box I got one day from a man that come along with medicine to sell, an' he's had 3 or 4 spoons o' Quakem's pain-killer an' 1 o' these sidelitiz powders, but I didn't feel like as if I ort to give him much o' anything, or try to do much for him, until you come an' see what you think ailed him." (The Kalends.)

Promise of Genius

The schoolmaster of a small village asked his pupils the following question:

"In a family there are 5 children, and the mother has only 4 potatoes to divide between them. She wants to give every child an equal share. What is she going to do?"

Silence reigned while everybody thought hard. Suddenly a small boy stood up and gave the following answer:

"Please, sir, mash the potatoes."

A seaside town proposes to have a carillon. Other coastal resorts rely on the hot weather to provide the peeling of the belles.—London Opinion.

Lighthouse Observations

DIETETIC IMPORT OF ROUGHAGE AND VITAMINS

To any physician in search of scientific facts about diet and the physiology of digestion, an article signed by Dr. Walter C. Alvarez, of the Mayo Clinic, would be—"enough said". Having many times wondered what food value, if any, could or should be attributed to bran and similar course, unattractive and distasteful foods, we were delighted to fall upon one of his interesting and instructive communications under the title of "Advantages and Disadvantages of Eating Bran and Roughage, as Seen in the Opinions of 470 Physicians" (Minnesota Medicine, April 1931, p. 296 to 300); and we present now a liberal abstract of that article.

Last August, Everybody's Health, the Journal of the Minnesota Public Health Association, published an article in which I asked for a little more thoughtfulness in the prescribing of bran and other forms of roughage. I reminded physicians and dietitians that 1 of the 2 reasons for giving bran is that it is absolutely indigestible, and I suggested that this fact be thought of more often when attempts are being made to treat constipation in persons who are not strong. If one is sure that the patient has the digestion of an ostrich, one can, perhaps, dump into his stomach large quantities of bran, dried seaweed, vegetable fiber, seeds, or cold, indigestible grease, and expect him to handle it all without distress. Examination of the stools later may show that digestion has been much interfered with but if the patient is sufficiently insensitive he will be unconscious of any abnormality, and if his constipation is relieved he will go on his way rejoicing, and insisting that all his friends do as he has done. But, let one of those friends happen to have a weak, easily disturbed digestion, or a bowel in which there are narrowed or highly irritable places, and he may find himself unable to handle the extra mass of indigestible material. In this case there will be flatulence, intestinal unrest and discomfort and perhaps some loss of weight.

The second reason for the giving of bran and roughage is the delusion or obsession that it is only by eating such substances that one can secure all those vitamins, salts, and mineral elements that are essential to life. Actually, anyone who knows anything at all about the subject knows that these dietary constituents can be obtained in large amounts and in more assimilable form from many other foods; in fact, if it is desirable, they can even be obtained from the drug store.

I fear that the future historian of medicine is going to be somewhat puzzled when he comes to write up the story of the vitamin mania of the twentieth century. He will wonder what on earth could have so frightened the dietitians that they should have behaved each day as if a moment's relaxation of vigilance would plunge all their (adult) patients into the throes of scurvy, beri-beri, pellagra, war edema, and xerophthalmia. Perhaps one reason why they fear these diseases so terribly is that they have never seen them and do not know what they are. Similarly, most people today are horrified at the thought of leprosy because they haven't the least idea what it is.

To show how rare the vitamin deficiency diseases are in America, I need only say that in 20 years of consultant practice I have seen only 1

case of beri-beri (due in part to lack of vitamin B) and 1 case of scurvy. I may have failed to recognize some cases, but even at that, these can hardly be diseases which everyone should be worrying about during every hour of the day. There are some physicians, dietitians, Red Cross workers, pediatricians, and others who must worry, but they are the ones who take care of: underfed children of the poor; old, half-crazy recluses; men out of work, who "batch" in cheap hotel rooms or in backwoods, ranch houses; fussy old women who live on tea and toast; men and women with ulcer or colitis, who try to live for months on milk and eggs; starving farmers in the drought-stricken areas of the South; winter-bound fishermen on the Labrador Coast; inmates of jails and poorhouses; and, particularly, the explorers who have to live entirely on preserved food. All such persons who live abnormally are in danger, but, so far as I can see, most of us who have a fair income and who eat as our fellows do can have little to worry about.

Whenever I have been so unfortunate as to get into an argument with a *whole-wheat enthusiast* of the type who would gladly legislate *white bread out of existence*, I have met this argument: "But, if you don't eat whole-wheat bread, where are you going to get your vitamins and your iron?" Even professional dietitians have tried to floor me with this question, forgetting for a moment what they must have known, that there are many other and better sources of vitamins and iron besides bran. Furthermore, strange as it may seem to the average dietitian, there is no shadow of an excuse for giving roughage when one wants to supply vitamins or chemical elements. One can get more than enough vitamin A in butter, more than enough of the 2 B's in a little yeast or extract of wheat kernel (obtainable in a drug store), more than enough C in a little orange juice, and more than enough D in a little tablet of concentrated cod-liver oil or irradiated ergosterol. Iron can be obtained in many foods besides wheat and spinach, and, if desired, can be supplied in the form of pills, just as they are now supplied in the standard salt mixture given to the rats in research laboratories. Even the green chlorophyll of plants can now be obtained in tablet form, so that *there is no real need for the appearance each day of spinach* on every sick-tray in every hospital in the land.

What I ask of dietitians is—that when they are trying to help a patient with a poorly functioning digestive tract, one which for a time should be rested and treated kindly, they should give food which is chosen primarily for its digestibility and palatability, and only secondarily for its vitamin content. Actually, in most cases, as when a patient is going to be in the hospital for 2 or 3 weeks after an operation, it is only a thoughtless or ignorant person who would worry about the vitamin content of the diet. *Everyone who eats sensibly has enough vitamins stored in his body to tide him over a few weeks or even months of semi-starvation.*

In order to obtain some idea of the views and practices of physicians in regard to the use of bran, and also of their experience with it, the Public Health Education Committee of the Minnesota State Medical Association sent out a large number of questionnaires to physicians all over the United States. The 470 answers that were received have been tabulated in the editorial office of "Everybody's Health", and the summary and

the returned sheets have been turned over to me for comment.

For a moment it was somewhat surprising to find so many of these men expressing themselves as strongly against the use of bran, but then I remembered that *it is not the medical profession that has been leading the crusade for the use of more vitamins and roughage*; this fight has been waged largely by lay women, amateur dietitians, self-appointed guardians of the public health, and cranks of all kinds.

A number of the physicians who answered made note of the fact that they formerly prescribed bran but later turned strongly against it; 40% said that they never prescribe it; and 34% prescribe it only occasionally. Similarly, 28% do not prescribe whole-wheat bread, and 29% prescribe it occasionally; 57% when they do prescribe whole wheat, do so because they wish to add roughage to the diet and 41% prescribe it mainly for its vitamin content. There is, of course, some overlapping in the 2 groups; that is, some men prescribe it for both reasons.

I was interested to see that so many physicians have found that the addition of bran and roughage to the diet will relieve only a small percentage of patients with constipation. Many of the doctors commented also on the fact that bran may relieve for a time and then fail to have any effect; the bowel seems to become accustomed to the extra stimulus.

I was struck by the letter of one physician who, like many of our profession, amuses himself and gets rid of his spare cash by running a stock farm. He said that it has long been known to stablemen that the horse, even with his powerful digestive tract, devised especially for the handling of rough foods and crushed seeds, does not do well if given much bran. He thought that if he had to *stop giving bran to horses*, many of us should stop giving it to *sick men and women*.

Practically everyone who answered the questionnaire condemned the tendency of school teachers, instructors in home economics, and amateur dietitians to prescribe rough diets for everyone. Of the physicians, 8% remembered having seen patients in whom they *thought* cancer of the bowel might have developed as the result of the ingestion of bran, but some of them admitted that they had no real knowledge on the subject.

The part of the questionnaire which interested me most was that in which the physicians reported the extent of their experience (in adults) with diseases due, or supposed to be due, to avitaminosis; 32% saying that, so far as they knew, they had never seen an instance of such disease (in adults); 49% had seen a few cases, and 16% had seen a number of cases; 3% did not answer the question.

I was particularly interested to see the answers of the many men with whom I am acquainted and who I know have good judgment and wide experience. Most of those men stated that in the course of years they have seen perhaps 2 or 3 cases of scurvy and 1 or 2 of pellagra. Some have seen a few cases in the county hospital but none in private practice. A professor of medicine at Harvard wrote on the back of his blank that he had never seen adults with definite vitamin deficiency "unless pernicious anemia is included, and unless pellagra is later proved to be due to a vitamin deficiency". "To me the remarkable thing among adults, to whom my work is confined, is that there is so little, in fact, almost no, evidence that vitamin lack plays any part in the illnesses that we see. *It seems entirely safe to advise adults to for-*

get vitamins entirely when they are living in the temperate zone and when they are economically able to eat an average diet such as is dictated by hunger and by the sense of taste."

A former professor of medicine at Johns Hopkins answered that he has seen "pellagra(?) and scurvy occasionally". A teacher of medicine wrote: "I see 2 types of deficiency: 1, a rare, definite case of pellagra or beri-beri or scurvy, and, 2, many adults with chronic disease who have profited by a diet rich in all the vitamins, particularly patients with pernicious anemia and chronic arthritis. I cannot determine whether this constitutes a real deficiency of a mixed sort, or whether it is only an incidental finding and one which can be found with equal frequency, perhaps, in normal individuals. The fact that good results follow from forcing vitamins does not necessarily prove an etiologic relation." He adds, very wisely: "This is a worthy cause you are promoting, but one must take care that propaganda against propaganda does not also end in being unwarrantedly emphatic."

Another physician, who has written a text-book on gastro-enterology, wrote: "Vitamins are overdone and over-emotionalized at the present time. I do not believe that I can recognize this condition if it exists." One of the ablest physicians in the Northwest wrote that he has seen 1 case! Another physician, who has had perhaps the largest experience in internal medicine in the Northwest, remembered having seen 3 cases of pellagra. One of the ablest and busiest internists in Minnesota wrote, in his characteristically vivid way: "The rarest thing in our practice. In Minnesota it is almost impossible for an adult, who is not a 'nut' on diet, to miss enough of the needful vitamins. The case for babies and young children, of course, is different."

As one would expect, most of the reports of disease due to lack of vitamins came from the South, and particularly from the poorer districts of the South, where pellagra is endemic. Even from there, however, it is noteworthy that some physicians reported seeing much pellagra, while others said it was rare. There was only 1 physician who took a strong stand against my statement that vitamin deficiency diseases are probably rare, but he is from the South, and he admits that he is classifying as avitaminosis any disease in which the patient improves on a diet rich in vitamins. He said: "I have seen hundreds of patients in this category, where general health was markedly improved by the addition of vitamins. Pellagra exists often in this class. In my opinion Alvarez is all wrong. The publication of such a doctrine, which is contrary to the views of those who have done the work, seems harmful to me." Most of the physicians, however, seemed to feel as I do, that although we are probably missing cases of dietary deficiency disease and should be more keenly on the watch for them, we must keep our feet on the ground and must not soar off with the faddists into realms of fancy.

To sum up: this questionnaire has shown clearly that *the physicians of this country are not enthusiastic about the use of bran*. They realize that it can relieve only a certain number of patients with constipation, and in them the relief is often temporary. Most of the physicians report also having seen indigestion and flatulence caused by the use of bran and other rough foods. In fact, many of them have seen so many instances of this that they now refuse to allow any of their patients with indigestion to take these foods. Almost all agree that *the present propaganda for addition of rough-*

age to the diet has been more harmful than beneficial, and almost to a man they condemn the practice of school nurses and others who prescribe the same rough diet for everyone and who offer prizes for the child who can eat the most spinach.

Finally, I think we can say that, except for a handful of enthusiasts who are riding their avitaminosis hobby rather hard, the physicians of the United States are very rarely seeing in adults any disease which they can ascribe with certainty to a deficiency in diet. Only one exception need be made and this is for those physicians in the South who practice among the poor. Many of them are seeing cases of pellagra, scurvy, and general undernourishment.

It would seem, therefore, that unless times ever get so hard that men and women all over this country come close to the edge of starvation, our hospital dietitians can rest easy, and they can with safety stop stuffing their transient guests with foods rich in vitamins. *The time may even come again when a 6-months-old infant can nurse happily at his mother's breast without having to stop to drink orange juice and cod-liver oil, and to eat spinach. As in the good old days, his mother will eat these substances for him, and perchance, if she doesn't like them overmuch, she will get a cow to eat them for her so that she can get the necessary concentrates in the cow's milk.*

Current Events

MINUTES OF THE WELFARE COMMITTEE

May 29, 1932

In response to a call, regularly issued by the Executive Secretary, the following named members attended a special meeting of the Welfare Committee, on Sunday, May 29, 1932, in the Princeton Room of the Stacy-Trent Hotel, Trenton, at 2 p. m., under the chairmanship of Dr. A. Haines Lippincott: Bloom, A. H. Coleman, J. G. Coleman, Conaway, Dandois, Davis, Green, Hagerty, Haggerty, Lee, Lippincott, McBride, McMahon, Meigh, Morrison, Mulford, Nafey, North, Schauffler, Schlichter, Tracy and Ulmer. Present as guests: Drs. Ely, McGuire and Quigley. Excuses for absence were received from: Drs. Clayton, Cosgrove, Donohoe, Haussling, Sewall, Sherman and Sommer.

REPORT OF THE EXECUTIVE SECRETARY

May 29, 1932

Gentlemen: Very little of importance has happened since our last meeting, and this session was called for the purpose, primarily, of considering some resolutions to be submitted by President Hagerty and Dr. Cosgrove, relative, in each instance, to questions which will be presented to the Society at its Annual Meeting in June, and in support of which your endorsement will be requested.

Of course, it is permissible to introduce other new business, and members should now present any subject concerning which the Welfare Committee's opinion is desired prior to the aforementioned state convention.

By way of report, we have only to say:

(1) Assembly Bill 325, exempting shoe stores and shoe salesmen from the existing law governing the practice of chiropody, had remained "in committee" from the date of its introduction—Feb-

ruary 8—until May 25, when it was suddenly reported out and given a "second reading"; which, automatically, places it on the "third reading file", whence it may be called for a vote at any time. We immediately renewed the Society's protest against passage of this proposed amendment, by a letter to each and every member of the Legislature, and will follow up as may become necessary.

All other legislative matters remain as last reported and, in so far as anybody can safely prophesy, we see no reasonable probability of any objectionable legislation being adopted this year.

(2) In the matter of Primers—new editions of which the Executive Secretary was authorized to secure and distribute—we are able to report that 2000 copies of the one entitled, "The Relationship of the Physician to the Public", were ordered in April; 300 copies were immediately used in this state; 1000 copies sent to the American Medical Association meeting in New Orleans, and placed at the disposal of Mrs. A. Haines Lippincott, Chairman of the Committee on Publicity, of the Woman's Auxiliary to the American Medical Association, were distributed throughout the nation; 100 copies were requested, on May 19, by the Auxiliary to the Medical Society of Arkansas; 200 copies requested on May 20 by the Auxiliary to the Medical Society of Missouri; and the remaining 400 copies doubtless will be asked for and distributed during the next month.

We believe it was the Chairman of this Welfare Committee who said that at the national society's convention—"our Primers were almost as much in demand as the world-famous New Orleans *pralines*".

When authorized to order these Primers, we tried to estimate the number possibly required. Responses to our letters were so slow coming in that we concluded the matter had been dropped, or at least postponed, and permitted the Committee's budget allotment to be used for other purposes. When, all of a sudden, the answers did come, it was necessary to fill the orders and carry that item of expenditure over into the next fiscal year, or, to ask the Committee on Budget and Finance to cover a small deficit. We reported the matter to the said committee and recommended the first mentioned method of payment; but the committee preferred, apparently, to dispose of it by immediate settlement. It now appears that we may be asked for an additional 1000 or 2000 copies, and we would respectfully ask for instructions. We are under no obligations to supply these Primers to other states, and it is true that other states are, in the main, as well able as New Jersey to make such an expenditure, but in view of the prestige it has given to this State Medical Society (New Jersey), we still think it a good investment and, if entrusted with discretionary power, will endeavor to safeguard the Society's interests satisfactorily.

(3) In this connection, we would appreciate also instruction as to what sum shall be asked for the budget of next year. We have already, pursuant to custom, filed a preliminary request for \$750—which is the same amount as has been granted for several years past. We can, however, file a new request, if this item is not satisfactory as reported.

Respectfully submitted by

Henry O. Reik, M.D.,
Executive Secretary.

Chairman: What action do you wish to take regarding Dr. Reik's report?

Dr. Schauffler: I move that the report be accepted, as a whole, and that the matter of further printing and distribution of "Primers" be left to the discretion of the Executive Secretary with full power to act.

This motion was duly seconded and unanimously adopted.

Dr. Morrison: In the matter of "budget", may I ask if we could get along next year on a smaller allotment, say \$500?

Executive Secretary: That depends upon what the committee decides to do. As mere "running expenses", yes; but, if something out of the ordinary routine happens—and it generally does—we will require more.

Dr. Morrison's motion, to ask for only \$500, was seconded and adopted.

The Executive Secretary then presented the resolutions upon which Dr. Cosgrove desired action, as follows:

REPORT OF THE COMMITTEE ON HOSPITALS AND MEDICAL EDUCATION

Samuel A. Cosgrove, M.D., Chairman

This committee has had 2 meetings in the year, the first early in the autumn of 1931. At that meeting tentative plans for a survey of facilities for cancer clinics and the adequate treatment of cancer, which are provided in the hospitals of our state, were outlined. This work has not yet assumed definite enough form to be reported upon in any greater detail. The second meeting was held on April 10, 1932. It had for consideration a letter from Dr. Nafey, Secretary of the Board of Trustees of the Medical Society of New Jersey, calling attention to an allegation that the mortality rate for appendicitis and appendectomy in this state is abnormally high, that the condition is being attributed to the existence of a large number of small, unlicensed hospitals, and that the matter has been referred by the Trustees to this committee.

Dr. Morrison met with this committee, on that occasion, and stated that he had talked with Commissioner Ellis, of the Department of Institutions and Agencies of New Jersey, which has authority to issue licenses to hospitals, and that Commissioner Ellis had expressed himself as receptive to a recommendation from the Medical Society of New Jersey, as a standard of requirements upon which licensure of hospitals in New Jersey should be based.

Attention was also invited to the fact that—lay boards of governors have, on several occasions, appointed part-time, or full-time, Chiefs of Service in hospitals, without due consideration to qualifying experience for incumbency of such positions; and further, that numerous instances have occurred in which lay boards of governors had made Staff appointments, in various grades, without adequate scrutiny of the professional qualifications of those appointed.

After considerable discussion of all these matters, the following resolutions were adopted:

I. *Resolved* that this committee recommends to the Medical Society of New Jersey, through the Welfare Committee thereof, that the Commissioner of the Department of Institutions and Agencies of New Jersey be formally requested to adopt the

minimum standard for acceptance of hospitals, by the American College of Surgeons, as the basis for licensure of all hospitals in the state of New Jersey.*

II. *Resolved* that it be recommended to the Medical Society of New Jersey, through the Welfare Committee thereof, that the State Board of Medical Examiners of New Jersey be requested to include in its standards for approval of hospitals for internship necessary for the admission of graduates in medicine, to examination for license to practice in New Jersey, the following:

(1) That in any hospital so recognized as acceptable for internship, no person shall be appointed as Chief of a Service or Department in such hospital who does not furnish proof of:

(a) Membership in a county medical society, affiliated with the American Medical Association, for a period of not less than 5 years prior to such appointment; and, membership in the society of the county in which the hospital is located for at least 1 year. (This last clause is an amendment proposed by Dr. Morrison to cover points brought out in discussion.)

(b) Bona-fide exclusive specialization in the respective field or department of the practice of medicine concerned, for a period of not less than 5 years prior to such appointment.

III. In all hospitals rated as acceptable for internship, all staff appointees should be certified by the Medical Staff to the Board of Governors, or equivalent governing body, as to their professional and scientific qualifications for their respective proposed appointments, before such appointments shall be made.

Respectfully submitted,

(Signed) S. A. Cosgrove,
Chairman.

* (The minimum standard of the American College of Surgeons, referred to in the above report, reads, as follows.)

THE MINIMUM STANDARD

(1) That physicians and surgeons privileged to practice in the hospital be organized as a definite group or staff. Such organization has nothing to do with the question as to whether the hospital is "open" or "closed", nor need it affect the various existing types of staff organization. The word *staff* is here defined as the group of doctors who practice in the hospital inclusive of all groups, such as, the "regular staff", the "visiting staff", and the "associate staff".

(2) That membership upon the staff be restricted to physicians and surgeons who are: (a) full graduates of medicine in good standing and legally licensed to practice in their respective states or provinces; (b) competent in their respective fields; and, (c) worthy in character and in matters of professional ethics; that in this latter connection the practice of the division of fees, under any guise whatever, be prohibited.

(3) That the staff initiate and, with approval of the governing board of the hospital, adopt rules, regulations and policies governing the professional work of the hospital; that these rules, regulations and policies specifically provide: (a) That the staff meeting be held at least once each month (in large hospitals the departments may choose to meet separately); (b) That the staff review and analyze at regular intervals its clinical experience in the various departments of the hospital, such as medicine, surgery, obstetrics and the other specialties, and the clinical records of patients, free and pay, to be the basis for such review and analysis.

(4) That accurate and complete records be written for all patients and filed in an accessible manner in the hospital—a complete case record being one which includes: identification data; complaint; personal and family history; history of present illness; physical examination; special examinations, such as consultations, clinical laboratory, x-ray and other examinations; provisional or working diagnosis; medical or surgical treatment; gross and microscopic pathologic findings; progress notes; final diagnosis; condition on discharge; follow-up, and, in case of death, autopsy findings.

(5) That diagnostic and therapeutic facilities under competent supervision be available for the study, diagnosis, and treatment of patients, these to include, at least (a) a clinical laboratory providing chemical, bacteriologic, serologic and pathologic services; (b) and an x-ray department providing radiographic and fluoroscopic services.

After considerable discussion concerning many things related to the fundamental subject at the base of these resolutions, participated in by Drs. Morrison, Quigley, McGuire, Green, Lee and Haggerty, it was decided to vote upon the resolutions separately.

The first one was read again by the Executive Secretary and upon motion of Dr. Haggerty, adopted.

The second resolution was further discussed by Drs. Quigley, Haggerty, Morrison, Ely and Conaway, and a motion by Conaway, that this section be referred back to Dr. Cosgrove's committee for further consideration, was adopted.

Dr. Green moved that the same committee be requested to consider also "the relationship of nurses to hospital control", and his motion, seconded by several members, and discussed by as many more, was unanimously adopted.

Dr. Morrison said he had always felt that this last mentioned problem was one for the Hospital Association to deal with, and he still believes that action by that organization would be more effective in this instance than would be any report from a medical society.

Dr. Schauffler spoke of a satisfactory arrangement in the hospital at Princeton, where there has been established a "Conference Committee" consisting of 2 members of the Board of Trustees, 2 from the Medical Staff, and the Head Nurse.

Dr. Nafey said a similar plan had worked well in New Brunswick.

Dr. Conaway spoke favorably of a plan at the Atlantic City Hospital, where a member of the Staff is chosen to serve as a liaison between the Staff and the Directors.

Dr. Lippincott said the same plan has worked well in Camden.

Dr. Green's motion was then unanimously adopted.

CERTIFICATION OF SPECIALISTS

President Haggerty, responding to a request of the Chairman, offered for consideration, an adaptation of the plan for control of specialists and specialism, introduced at the last Annual Meeting, at Asbury Park, by Dr. E. G. Waters, of Jersey City. He explained that a great deal of labor, especially by Waters, Reik and himself, had gone into the preparation of this working plan; that he had also submitted it to a group of 12 members selected on the basis of their knowledge and experience; and, that he was presenting the product of all this work in a form satisfactory to all those consulted.

Dr. Haggerty then read the document, paragraph by paragraph, each being voted upon, separately, as read; and, after each of the 9 sections

had been adopted, unanimously, the entire plan was unanimously adopted as a whole. The plan, as adopted for presentation to the House of Delegates, is as follows:

PLAN FOR ACCREDITING AND CONTROLLING SPECIALISTS AND SPECIALISM BY THE STATE MEDICAL SOCIETY

Realizing the unsatisfactory conditions growing out of "specialism" and the abuses that have resulted from the improper assumption and use of the title "Specialist", the Medical Society of New Jersey has decided to establish a plan under which it can serve as sponsor to the public for such of its members as their colleagues recognize as being properly qualified and competent to practice as specialists, and are deemed worthy of this Society's endorsement.

The plan herewith proposed requires no new or additional legislation; in fact, avoidance of legislative action and keeping the control of medical affairs in the hands of the organized profession are among the merits of this proposal. Neither does the plan interfere, in any way, with the *legal rights* of any regularly licensed physician, surgeon, specialist, or general practitioner. It will, however, permit those members who are, or may become, properly qualified in certain branches of medical practice to secure the approval and endorsement of the society, and to let the facts be made known to the public through proper medical channels.

PLAN

State Society Committee. For the purpose of putting this plan into effect and of continuing its application and enforcement during the next 3 to 5 years, a special committee shall be appointed, to be known as the Committee on Credentials of Specialists, to be composed of the President and Secretary, and the Chairman of the Welfare Committee, Chairman of the Board of Trustees, the Secretary of the State Board of Medical Examiners, and First Vice-President. Said committee shall be empowered to call into conference from time to time, as may be desirable, one or more specialists from the State Society's list, to serve the committee in an advisory capacity while dealing with the scientific credentials of the candidate for recognition. This special committee shall have, further, authority to pass upon all such personal attributes, and set up such educational requirements as may be deemed necessary. The presence of 5 members shall be required at meetings for consideration of candidates. In the event that any member of the committee is removed by death, or resignation, the Board of Trustees shall fill the vacancy thus created.

County Society Committee. Each component county medical society shall set up a similar Committee on Specialist's Credentials for a period of 3 to 5 years, composed of its President and Secretary and 3 other members to be elected by the county society.

METHOD OF PROCEDURE

In County Society. Any member of a component county medical society, desiring recognition and certification of himself by the Medical Society of New Jersey, will make such application to the Secretary of his county society, on blanks to be provided by the State Society, and present therewith such documents and evidence of what-so-ever sort he may think entitles him to listing as a *specialist in his chosen line of medical practice*.

The said county society Secretary will then present the application and all of its supporting tes-

timony to the County Society Committee on Specialist's Credentials; and, if and when that committee—after careful consideration of the material submitted, and such further investigation as the committee may see fit to make concerning the applicant's moral character, professional conduct, educational background (general and medical), experience in the general practice of medicine, and general fitness to enter or remain in the field of *specialism*—shall have given its approval to the application, the said Secretary shall at once forward that application, with the committee's endorsement attached (together with a copy or copies of all documents and records of information, upon which the county committee based its decision), to the Secretary of the State Society. Four members of the county committee shall constitute a quorum.

In State Society. Upon receipt of such an application, the State Society Secretary shall present it (and he may attach thereto any additional information, suggestions or recommendations believed by him to be germane to the question) to the State Society's Committee on Credentials of Specialists, and, after due consideration of all information at hand or readily available, that committee shall determine whether the candidate is worthy of recognition, as a *specialist*, by the State Society, and shall forward its recommendation to the Secretary of the State Society, at least 30 days prior to the next regular Annual Meeting.

In the event that an applicant for recognition as a specialist is rejected by the county society committee; or, if that committee has not rendered a decision as to approval or rejection within a period of 1 year; and the applicant feels that he has not been treated fairly, he may appeal to the State Society, through its Secretary, and request that his application and its supporting evidence be taken from the county society and considered by the corresponding State Society Committee.

Decisions of the State Society Committee upon such appeals and also upon adverse decisions of its own, when dealing with applications endorsed by the County Committee, shall be final, unless otherwise determined by the Trustees or House of Delegates of the State Society.

The deliberations and findings of the State and County Committees shall be the property of the State Society Committee.

QUALIFICATIONS

(1) A candidate must be known to and recognized by his professional associates as an honest, conscientious and ethical physician.

(2) Fellowship in the American College of Surgeons, or Fellowship in the American College of Physicians; or a diploma from one of the National Examining Boards—ophthalmology, otolaryngology, obstetrics and gynecology; membership in the American College of Radiology, or the Radiologic Society of North America; or membership in the American Psychiatric Society; will be considered a favorable recommendation.

(3) Members of the Medical Society of New Jersey holding appointments on a hospital service, in a special branch of medicine or surgery or any of the recognized specialties, whose service is sufficiently active to afford attainment of a high degree of proficiency; and the duration of whose appointment has been at least 5 years; will be deemed worthy of consideration.

(4) Those who may later receive, from recognized colleges or other teaching institutions, certificates showing completion of post-graduate courses of instruction leading to the degree of

"Master" in any branch of medicine or surgery; or,

(5) Evidence of continuous, active, successive practice during at least 10 years, marked by study, travel, active membership in medical societies, and proof of special ability in their chosen fields of practice; will be deemed worthy of consideration.

CERTIFICATION

(1) The certification as *specialist* in any given branch of medicine or surgery shall be awarded at the Annual Meeting of the State Medical Society, in such manner as may hereafter be determined by the State Society Committee on Credentials of Specialists, and by the Board of Trustees.

(2) A suitably engrossed *Certificate*, carrying the seal of the State Medical Society, and subscribed to by the State Society Committee on Credentials of Specialists, shall be issued to all approved applicants.

(3) The State Society, upon the advice and request of the State Society Committee on Credentials of Specialists, may distribute the lists of *Approved Applicants* and *Certified Specialists* in such places and manner as may seem desirable for the effectiveness of this plan.

(4) To defray the cost of certification and certificate, a charge of \$25 shall be made, payable before the Certificate of Qualification as a Specialist is issued.

This State Society Committee shall have the right to revoke any certificate issued, upon proof being shown that fraud or misrepresentation was used in obtaining certification.

Dr. Reik, with permission, expressed his pleasure in having witnessed what he believes will come to be recognized some day as one of the most important progressive steps ever taken by this or any other State Medical Society, and then added that, inasmuch as Dr. Hagerty, in his modesty, had permitted in committee a change which excluded himself from the State Society Committee on Credentials of Specialists, it was to be hoped that some one who had the right to do so would present a motion requesting Dr. Hagerty (ordering him, if necessary) to serve as Chairman of that committee for the first year of its existence, to assure a proper inauguration and establishment of this important work.

Such a motion was promptly made, seconded, and adopted.

Dr. Ulmer: Mr. Chairman, I have been requested to present here today a series of resolutions which were adopted at the May meeting of the Gloucester County Medical Society, as follows:

Where-as, it has come to the notice of the Gloucester County Medical Society that the Committee on Finance and Budget is considering a recommendation to the House of Delegates that the size of the Journal be cut one-third, and that the salary of the Editor and Executive Secretary, and the salary of the Field Secretary, be materially reduced;

Be it resolved, that the Gloucester County Medical Society shall go on record as being opposed to any reduction in the size or quality of the Journal of the State Society, or to any other measures that would interfere with the efficiency or activities of the Editor of the Journal; furthermore,

Be it resolved, that if the need for economy is great, the Gloucester County Medical Society shall go on record as being in favor of a material re-

duction in the salary of the Field Secretary, or, to the temporary or permanent abolition of said office.

Read and adopted May 20, 1932.

(Signed) Ralph K. Hollinshed, M.D.,
Secretary.

The Executive Secretary having left the room instantly, upon realizing that the "Where-as" referred to himself, we do not know what happened during the next few minutes save that the subject matter was referred to the State Society's Committee on Finance and Budget.

Dr. D. Leo Haggerty made a brief report concerning some legislative matters, particularly Bills A. 72 and A. 334, and the optometry law amendments, and then presented a letter received by the Mayor of Trenton from an Optometric Association, requesting His Honor to "sponsor the establishment of an Eye Clinic in Trenton". Mayor Donnelly has been making inquiries preparatory to answering.

(Letter from Mayor Donnelly)

"Dear Dr. Seely:

A proposal has been made to me by the Trenton Optometric Association, through its President, Dr. William H. Nicklin, to sponsor the establishment of an "eye clinic" in Trenton. At my request, Dr. Nicklin outlined the plans in letter form, copy of which I am sending for your perusal and attention, hoping to have your coöperation before I arrive at a definite decision.

May I ask that you study this subject carefully within the next few days and then communicate with me, giving an expression of your thoughts on the feasibility of such a project. Naturally, I am desirous of having the advice of men specializing in this field of endeavor before committing myself, so I trust you will let me have your reactions without delay.

Sincerely yours,

(Signed) Frederick W. Donnelly,
Mayor."

C O P Y

DR. WILLIAM H. NICKLIN
210 East Hanover Street
Trenton, N. J.

May 19, 1932

Hon. Frederick W. Donnelly,
Office of the Mayor,
City Hall, Trenton, N. J.

Sir: Pursuant with your request, the Trenton Optometric Association has endorsed and submits the following plans in regard to the proposed Optometric eye clinic.

It was decided that a clinic devoted to the care of the eyes be established in Trenton, N. J., under your auspices, controlled and run by the Trenton Optometric Association. A board of directors, chosen from the membership of this association, will appoint the personnel of the clinic.

Each associated Optometrist will contribute toward the purchasing of a complete set of equipment which will be given to the board of directors for use in this clinic. The full expense of this equipment is to be met by the Trenton Optometric Association.

Cases to receive the services of the clinic must be referred to the clinic by recognized charitable or welfare organizations. Full coöperation will be given to your own charitable organization and to

others of similar caliber. There shall be no discrimination as to race, creed or color. It is very probable that arrangements now being worked upon will materialize, making it possible for the clinic to supply free glasses to those cases which are proved to be worthy of such help.

Examination will be similar to that given in the Optometrical division of the Psychological and Mental Hygiene Clinic of Rutgers University, a case sheet from which is enclosed. A physician will be in attendance to care for pathology discovered in the course of the examination.

Tentatively, the clinic will be open 2 mornings and 1 afternoon each week.

Full coöperation will be extended to other professions in relation to diagnosis and consultation.

We ask of the city that we be supplied with suitable quarters, light, heat and water for same, together with a desk, some chairs, and the meeting of the expense of having the necessary forms printed.

In conjunction with this letter, a meeting in the near future between yourself and the representatives of the Trenton Optometric Association would be most desirable.

Trusting to hear from you in regard to this matter, we have the honor to remain

Very respectfully yours,
Trenton Optometric Association,
(Signed) Wm. H. Nicklin, O.D.,
President.

Dr. Morrison, after some discussion of optometric affairs by Drs. Quigley, Haggerty and others, moved that the Mayor be informed that we are opposed to the establishment of such clinics anywhere not under the direction and control of properly equipped Eye Specialists. The motion was seconded and adopted without a single dissenting voice.

Dr. McGuire spoke of A. 334, designed to compel the Board of Examiners to issue Chiropractors' licenses to World War Veterans, and promised to send every member of this committee a copy of a special analysis of this Act and of the law pertaining to Spanish War Veterans.

Dr. McBride, responding to a question, again advised members of the Welfare Committee, individually, to see—each his own—State Senator and Assemblymen about pending legislation, at any time, in which this committee, as a whole, is interested.

The meeting then adjourned.

Henry O. Reik, M.D.,
Secretary, Welfare Committee.

TRI-STATE MEDICAL CONFERENCE

The twentieth Tri-State Medical Conference was held on February 20, 1932, at the Pennsylvania Hotel, New York City, at 10.30 a. m., with Dr. William D. Johnson, President of the New York State Medical Society, presiding. Those in attendance were:

New York: Drs. William D. Johnson, Batavia; Frank Overton, New York City; Joseph S. Lawrence, Albany; Thomas P. Farmer, Syracuse; D. S. Dougherty, New York City.

Pennsylvania: Drs. William H. Mayer, Pittsburgh; Walter S. Brenholtz, Williamsport; Walter F. Donaldson, Pittsburgh; Frank C. Hammond, Philadelphia.

New Jersey: Drs. John F. Hagerty, Newark; George N. J. Sommer, Trenton; Ephraim R. Mu-

ford, Burlington; J. B. Morrison, Newark; Henry O. Reik, Atlantic City.

Dr. William D. Johnson: The officers of the New York State Medical Society have great pleasure in welcoming to this Conference the representatives of our sister states. Our Executive Secretary, Dr. Joseph S. Lawrence, has prepared the program. Dr. Thomas P. Farmer, who is Chairman of the Joint Committee to Study the Report of the Governor's Special Health Commission, will speak to us about that work.

STUDY OF THE REPORT OF THE GOVERNOR'S SPECIAL HEALTH COMMISSION

Thomas P. Farmer, M.D.,
Syracuse, N. Y.

The House of Delegates of the Medical Society of the State of New York, at its Annual Meeting in 1931, directed 2 of its standing committees, namely, the Committee on Public Health and Medical Education and the Committee on Public Relations, to study the Preliminary Report of the Special Health Commission appointed by the Governor of New York State, and to make recommendations upon all or any subjects therein presented, and to report to the House of Delegates not later than January 1, 1932. When this resolution was adopted by the House of Delegates it was my opinion that a mistake had been made, but when, after the study had been completed and the report submitted and acted upon by the House of Delegates, I was able to observe the profound effect that our study had upon the officials of the State Department of Health and the executives of voluntary health organizations, I became convinced that it was a very wise move of the Delegates to direct that such a study should be made. In order that I may give a correct description of this study, it is necessary to review briefly the history of health work in New York State.

Until 1913, New York State was carrying on health work about the same as other states. The position of Health Officer of the state generally was more or less a political appointment. In 1913, Governor Sulzer authorized the appointment of a Health Commission to review health laws and to make recommendations regarding a re-organization of the State Department of Health. Dr. Herman M. Biggs, who had been Medical Officer of the Health Department of New York City for several years, and who was largely responsible for the progress made there in health work, was Chairman of that Commission. The first recommendation of that Commission concerned the security of tenure of office and satisfactory compensation for the State Health Commissioner, in order to secure and retain the most efficient man in the state for that service. The Commission also recommended that the Commissioner be required to devote, substantially, his entire time to official duties. Dr. Biggs was appointed to the position and, while not a full-time official, he was able, by his ability to accomplish things and his prominence in health work, to make up for any lack of time, devoted to the work.

The Commission's second recommendation was quite outstanding for that era in that it recommended establishment of a Public Health Council to set up "sanitary regulations". The granting of legislative powers to various boards and councils, within certain restrictions, is not unusual in government, so there was precedent for such action.

This Public Health Council was composed of 6 persons in addition to the Commissioner of Health, and one appointment is made each year by the Governor. The law requires that at least 3 of the Council members shall be physicians, and 1 shall be a sanitary engineer. The Council has rather broad powers and, in addition to adopting a sanitary code, is charged with setting qualifications for health officers.

Another recommendation of the 1913 Commission directed that the state, outside of New York City, be divided into at least 20 sanitary districts, with a district health officer in charge of each, devoting full time to his work. The Commission made further recommendations regarding birth and death registrations, public health nurses, tuberculosis, child hygiene, public health laboratories, and health educational work.

From time to time, changes in and additions to the public health laws were made. Furthermore, new methods in the practice of public health had become established. Consequently, a revision of the public health laws seemed necessary and, on May 1, 1930, Governor Roosevelt appointed a new commission for such purpose. In addition to the above reasons, the Governor called attention to the phenomenal accomplishments in public health work in New York State during the past 15 years, much of which he felt was due to legislation passed upon recommendation of the Health Commission of 1913; and, the Governor also referred to the rapid strides in medical science as another reason for creating a new Commission.

The Commission which Governor Roosevelt appointed, and which was at first known as the Governor's Special Health Commission, but later was called the New York State Health Commission, consisted of 14 members, with Dr. Livingston Farrand, President of Cornell University, as Chairman, and Mr. Homer Folks, of the State Charities Aid Association, as Vice-Chairman. Of its members, 8 were graduates in medicine, but of those only 3 were in active medical practice. At least 7 of its members had been, or were at the present time, actively associated with different Foundations. Despite Governor Roosevelt's emphasis upon the rapid strides in medical science, and its outstanding achievements, as one reason for appointing this Commission, it is very apparent that *lay interests* in health work were heavily represented in the Commission's personnel.

The Commission appointed several sub-committees to study specific matters upon which it was to report. The studies made by some of these sub-committees emphasized the lack of *adequate medical representation* in their make-up. On February 16, 1931, the Commission made a preliminary report which was sent to the Governor and transmitted by him to the Legislature on February 19. In this report the Commission listed, as pressing, immediate needs, the following matters:

- (1) Effective local health departments with qualified personnel.
- (2) More effective service in the control of tuberculosis, cancer and the venereal diseases.
- (3) More comprehensive measures to reduce infant deaths and deaths among mothers from causes incident to child-birth.
- (4) Further coordination of school hygiene with other health services.
- (5) Better organization for the discovery and cure, rehabilitation and care of crippled children.
- (6) The extension of public health nursing throughout the state to reach the standards now in effect in a few areas.

(7) Protection of the public health through additional safeguards in the purification of water supplies and the prevention of stream pollution.

(8) More attention to the growing problem of industrial hygiene.

The Governor's Health Commission made several recommendations, the most important of which was that *county boards of health be organized in all counties*, and that it be mandatory that these boards be appointed not later than September, 1931, and that a County Health Commissioner be selected by these boards not later than December 1, 1931. The Commission also recommended that, in cities of 50,000 or more population, and in large counties, *Health Commissioners* hereafter appointed shall be required to *devote their entire time* to the duties of their office. The Commission recommended the establishment of 3 State Tuberculosis Sanatoriums, in addition to the 1 at present existing. The Commission recommended that *patients with venereal disease should be treated by health departments whether they are indigent or not*. Other recommendations had to do with the establishment of a division of cancer control in the department of health, measures dealing with maternity and child hygiene, crippled children, sanitation, and public health personnel. The recommendation dealing with the public health personnel was a very broad one.

Following transmission of the report to the Legislature, Bills were immediately introduced in that body purporting to carry out some of these recommendations. One Bill made the creation of county health departments mandatory; another Bill dealt with the full-time health officer; another authorized the building of the 3 sanatoriums; and another dealt with the treatment of venereal disease. The last 3 Bills passed the Legislature. The Bill making county health departments mandatory caused considerable objection, of course, particularly from the medical profession. For more than 10 years there has been a law in New York State whereby any county board of supervisors might establish a county department of health which would receive state aid. Shortly after the enactment of that law, such a county health department was organized in Cattaraugus County, as a demonstration project, receiving financial support from the Milbank Fund. The relations which have existed in Cattaraugus County, between the official health department and the medical profession, have been far from harmonious and, as this was the only county health department in the state for several years, naturally, the medical profession did not look with favor upon county health departments. Members of the medical profession who knew of the conditions in Cattaraugus County were very active in their opposition to this particular Bill, and in some counties, where there had been an inclination to establish county departments of health under the permissive law, opposition to such action immediately developed. The work of the Commission, naturally, was praised by many members of the medical profession, including several Past-Presidents of the State Society. Unfortunately, their statements, which referred to the general work of the Commission, were misinterpreted as being in approval of the specific legislative Bills; which, of course, caused considerable confusion and misunderstanding. Naturally, when the House of Delegates met, the report of the Governor's Special Health Commission was a matter of great interest. As it had been referred to in the President's report, it came to the floor of the House in the report of the Reference Com-

mittee which had considered the President's report. As has already been mentioned, this Reference Committee recommended the study of this report by the 2 standing committees which afterward came to be known as the "Joint Committee".

The Joint Committee immediately realized the tremendous task imposed upon it. Different sections of the Governor's Special Health Commission Report were assigned to various members of the Joint Committee for intensive study.

Arrangements were made for meetings of the Joint Committee, in various places in the state, in order that at least 1 representative from each county medical society could be heard by the Committee. Such meetings were held in Buffalo, Syracuse, Albany, and New York City. These cities were so located that a representative from every county medical society could reach at least one such city without inconvenience or great expense. When the Joint Committee met in these cities, a morning session was devoted to an executive meeting. The Joint Committee invited also to the morning meetings persons possessed of special or particular information on health matters. Several members of the Governor's Special Health Commission, as well as its sub-committees, were invited to these meetings; as were also the commissioners of all the county health departments in the state. The afternoon meetings were open hearings. All of the county medical societies in the state had been notified by Dr. Lawrence of the purpose and date of such meetings. The report of the Governor's Special Health Commission was reprinted in the New York State Medical Journal. Consequently, an opportunity was given to the entire medical profession of the state to become informed on the matter and to present to the Joint Committee such opinions as it desired to record. A stenotyped record was made of all the Joint Committee meetings. All persons appearing before the Joint Committee were told of the purpose of the Committee's work and informed that it would be expected that the Committee had the right to question any one appearing before the committee on any matter. These questions brought out a great deal of valuable information and, as a result of these meetings, the Joint Committee not only became more familiar with the subject but obtained a splendid cross-section picture of how the medical profession in New York State felt about the Report of the Governor's Special Health Commission. The Joint Committee, furthermore, had more first-hand information on the public health work of the state than any other body at that time.

The Joint Committee held 2 meetings previous to the open hearings, and 2 meetings following the hearings. At these last meetings the Committee reviewed all the information obtained at the previous hearings, which included between 12,000 and 13,000 pages of record. From this record the Committee made the findings which are submitted in its report.

The subject of county health departments is to be discussed by another speaker. However, I want to say that while the Joint Committee agreed with the approval already given by the State Medical Society, to the organization of county health departments, it did not feel that the mere establishment of such a department was of any benefit unless such a department was to function in an efficient way, with full coöperation of the medical profession, and with a local man as Commissioner of Health, provided such a person could be found with the proper qualifications. The Joint Committee, therefore, felt that inasmuch as several county

medical societies were making excellent progress toward the organization of efficient county health departments, under the permissive law, better results would be obtained under the present law than by mandatory legislation.

The Joint Committee registered disapproval of the treatment of non-indigent patients by public authorities, but was in accord with the principle of giving public health authorities control of infectious diseases while in a communicable stage. The Committee approved the suggestion of full-time health officers in municipalities of 50,000 or more population.

The Joint Committee made suggestions regarding cancer control, school hygiene, and, particularly, maternal hygiene and orthopedics, and expressed the opinion that the Public Health Council was the proper body to establish qualifications for physicians in public health work, but felt that such authority should be given only when the positions were created or the necessity arose. The Joint Committee recommended that the public health council hold open hearings on proposed regulations, or changes in the sanitary code, and also recommended that the State Medical Society have the privilege of submitting to the Governor a list of suitable names, when an appointment was to be made to fill the place of a medical member of the Council.

The report of the Joint Committee was practically sustained by the House of Delegates. Since publication of the report of the Joint Committee, health departments and voluntary organizations have indicated an increasing desire for the co-operation and aid of the organized medical profession in their projects. I believe the study of the Joint Committee is largely responsible for this, and that, as a direct result, public health work in the State of New York will be greatly enhanced. That is why I feel that the study of the Preliminary Report of the Governor's Health Commission by the Joint Committees of the State Medical Society was one of the best things the State Medical Society ever did.

Dr. Johnson: We will now hear from our Executive Secretary, Dr. Joseph S. Lawrence.

COUNTY HEALTH UNITS

Joseph S. Lawrence, M.D.,

Executive Secretary of the New York State Medical Society,

Albany, N. Y.

Dr. Sadlier, who expected to take this place on the program, asked me to extend you his regrets at not being able to be present. He had planned to come, and he wanted to speak on the subject of "County Health Units" for 2 reasons: first, because it was the principal recommendation of the Governor's Special Health Commission; and, secondly, because he believes that it is a very desirable advance in public health administration.

The county health unit idea is not particularly new, as you are all aware. Many have been organized in the southern states, but in our states it is rather a novelty. The first one in New York State was organized about 6 years ago, but was complicated somewhat by other public health activities that were instituted in the county at the same time. Since then, 3 other counties have been organized according to this scheme, and all of them are operating satisfactorily.

Probably a short description of the manner in

which public health activities are conducted in New York State will be of advantage. All of our public health work, of course, heads up with the Commissioner of Health. Under him, the work is divided among a group of Divisions, each headed by a director.

In addition to this division, the state is geographically divided into 20 districts, and over each of these is appointed a district state health officer, whose duties are largely supervisory. The State Department of Health, through some of its Divisions, conducts clinics: for instance, tuberculosis, pre-natal and child welfare. Other Divisions supervise very closely the clinics that are organized and conducted by local authorities; namely, venereal disease.

The unit of actual public health work is the city and town or township. For each township, there is a board of health which selects a health officer. At one time there were over 1000 such units in the state, but for several years the improved methods of communication have encouraged districts to combine, so that there are at present a good many such group districts, termed "Consolidated Districts", where 1 physician serves an area that heretofore was divided among 3 or more. These consolidated districts have been successful and have recommended the creation of still larger units.

It is required by law that all health officers must be licensed physicians, and usually the law has been interpreted to mean physicians licensed to practice in this state. At present, I believe there is only 1 health officer in the state who, although a licensed physician, does not have a license to practice in New York State. Although every health officer is a physician, the coordination and co-operation are not all that could be desired. In times of state-wide epidemics, the Department of Health has endeavored to secure co-operation through the services of its district state health officers, but this has not always been an easy task. The health officers are compensated locally and directed by their local health boards, hence many of them feel resentful at any interference on the part of the state or their neighbors.

The state has 2 direct approaches to each health officer: (1) the requirement that he submit, annually, a report of his activities; (2) that he is urged to attend, annually, a conference called by the State Commissioner.

Organization under the county unit plan would eliminate the town and township health officers and health boards. Their functions would be taken over by the County Board of Health and the Commissioner with a number of deputies. It would seem that with our improved methods of communication, the town unit is too small and public health work could be administered much more economically with the county as a unit, but the town health officers' remuneration is so meager, as compared with the salaries paid under the county health unit plan, that there would probably be little or no difference in the amount of money required for the work.

In New York State the county is not generally considered a political unit, although it has been used as a unit in several activities; for instance, the construction of highways and the erection of tuberculosis sanatoriums, but the majority political party has objected to extension of the idea indefinitely. Under the public welfare law, communities are encouraged to organize as county units, and in some counties this has been done.

Let me, in the few minutes that remain, discuss

with you some of the outstanding advantages and disadvantages of this form of organization:

ADVANTAGES

(1) *Home rule in public health administration:* The outstanding advantage of a county health unit is that it would give the county board of health full authority for the administration of all public health matters in the county. This would give a splendid opportunity for the development of any special line of work that may particularly apply to the county, and it would also give the county health board an opportunity to cooperate with the County Medical Society, because they would have a mutual interest in promoting the best health conditions for the county.

(2) *Exceptional opportunities for effectively informing the public on medical and public health matters:* The important factor to be sought in promoting public health programs is the intelligent and sympathetic cooperation of the public. Many programs have real virtue but, because the public and the practicing physicians are unfamiliar with them, or but poorly informed of their merit or their objectives, they frequently arouse stormy opposition which continues until the public becomes enlightened. A county board can obviate many difficulties by using the local resources for suitable publicity regarding its programs; for instance, if it planned to promote interest in vaccination against smallpox, it could have its arguments presented to every organization in the county, and through the local newspapers meet, publicly, what opposition there might be, so that by the time it was scheduled that the campaign should begin, the public would be prepared to cooperate intelligently. No campaign promoted by the State Department of Health could be as effective in any particular county.

(3) *Unification of the work of the health officers:* At present, the health officers are appointed locally and are responsible to their immediate boards of health, but may have little or no relationship with each other, although their districts may adjoin. The Health Board of the County would supersede the State Department of Health in exercising immediate, coordinating supervision over all of the health officers, and thus unify their work. The control of a communicable disease would be greatly simplified by the board of health's mobilization of the preventive forces in all districts adjacent to the one in which the disease appeared. This action could be taken much more expeditiously and effectively by the County Board of Health than by the State Department of Health.

(4) *Coordination of health officers and Medical Society for cooperation:* One of the serious weaknesses of administration of public health matters at present is the lack of cooperation between the health officers and the practicing physicians of the county. In not a few counties, some of the health officers are not members of the County Society and rarely do those who are members bring to the society a statement of their programs and ask for cooperation of the practicing physicians. This lack of intercourse has contributed greatly to the misunderstandings that have arisen from time to time between the health officers and the practicing physicians and has prevented intelligent cooperation which is so much to be desired.

(5) *Securing more effective inspection of milk and water supplies:* Rarely is the milk consumed in one district produced in that district, or, to put it in another way, rarely does one dairy dispose of its entire product in that health district. The

health officers are expected to inspect the dairies in their districts, but, naturally, their greatest interest will be in the dairies from which the milk comes which is consumed by the people in their district. A county unit would relieve the health officers of this responsibility and place it all upon one person. Of course, there might be instances where a dairy would be located in one county and supply milk to another, but the sanitary officer, who gives his whole time to the care of water and milk supplies, could be expected to have an equal interest in all milk or water supplies.

(6) *Direct supervision of public health nurses:* The County Board of Health would place the supervision of all public health nurses under the county commissioner. The efficiency and desirability of such organization needs no discussion.

(7) *Coordination of the tuberculosis hospital and the public health laboratories under the Board of Health:* The desirability of this coordination is also so obvious that no argument in its support is necessary.

UNDESIRABLE FEATURES

(1) *Political interference:* The salaries offered for the personnel of the county organization are bound to prove attractive and, without doubt, political influence will be used by persons seeking positions. Heretofore, it has been the boast of health activities in this state that they have been free from political influence, and there is justification for this claim; but the new unit carries so many large salaries that it is doubtful whether some of them will not be influenced by political patronage.

(2) *Lack of initiative on part of health board combined with inclination of county commissioner to rely on State Department of Health:* If the local board of health lacks initiative and does not guard its home rule prerogatives, it will, naturally, be displaced by representatives of the State Department of Health; or, if the county commissioner is inclined to place the responsibility for his work upon the State Department of Health, its representatives will dominate him in his work and, again, the county will lose the benefit of home rule; and under such conditions the unit will have defeated its own purpose and the public will have gained nothing but an increased tax burden.

(3) *For the unit to practice medicine through the creation and conduct of clinics:* If the administrators of the county health unit feel that they have an immediate responsibility for the medical care of the people of the county, rather than for their education in health matters, the creation and conduct of public clinics will be one of their chief activities. In doing this, they will compete, naturally, with the practicing physician and the community will gain only a certain amount of public service. The ideal condition generally accepted by public health workers is that every person—and particularly every head of a family—should have an honest desire to protect himself and those dependent upon him from disease, and should appreciate the wisdom of seeking the aid of the proper persons at the proper time. The services of a family physician should not be superseded by clinic service and where it is possible to have the services of a family physician, public clinic facilities ought never to be urged. Therefore, it should be the County Board of Health's aim to stimulate every adult to cooperate closely with his family physician in the protection of his own health and that of those dependent upon him.

(4) *Bureaucratic development:* A properly or-

ganized county health unit will bring a certain number of new individuals into the work who will be expected to give their full time to their positions. They will, naturally, tend to become bureaucrats; their principal objective will not be centered in the individual citizen, but rather in the development of a set program.

(5) *Disinclination to cooperate with County Society*: No greater calamity could befall a county health unit than that the authorities to whom its administration is entrusted should not seek the co-operation of the physicians of the county. Occasionally, one hears a public health worker express impatience with the practicing physicians and boast that the health program will advance in spite of the practicing physician and, occasionally, such persons attempt to seek public sympathy and support for the position they have taken. Such conditions usually correct themselves, but until they do so, the public suffers.

Secretary: The next paper on the program was "State Aid as Related to Public Health Work", by Dr. William D. Johnson, President of the Medical Society of New York State, and it was delivered verbally, but Dr. Johnson requested that no notes be taken, and he has not sent us any manuscript; in consequence of which we can only record this statement.

DISCUSSION

Dr. Frank Overton (New York City): Dr. Overton requested that no notes be taken, so again, we regret to say, our report is incomplete.

Dr. Walter F. Donaldson (Pittsburgh): I have felt all morning as if we from New Jersey and Pennsylvania were fortunate in being permitted to sit on the side-lines while representatives of the New York State Medical Society are discussing this problem which is, undoubtedly, a problem common to all state societies, and giving us the full benefit of their experience up to date. Dr. Farmer is here today, after having attended, only day before yesterday, a meeting of his Joint Committee, so that, while I do not dare speak for any one else from Pennsylvania, I do not believe Pennsylvania will be able to contribute very much of value to this discussion. However, I assure you that we have been "drinking in" this advance report of the experience that you have had in New York State.

Dr. Joseph S. Lawrence: May I urge you all to speak out. This is such an important problem—it has certainly reached to the bottom of our foundations—that I am sure it will be passing over to your states; and if you have only questions to ask, they may stimulate us to further study.

Dr. William H. Mayer (Pittsburgh): I am sure we are all extremely grateful for this opportunity to hear a discussion on so important a subject. I might give you some of the thoughts of Pennsylvania physicians in regard to this problem. It occurs to me, with regard to your County Health Unit and the idea of avoiding *state medicine*, or staving off what seems to be the present sociologic trend, that this Commission Report is, after all, comparable to a quack remedy for this serious situation. I say this in all candor because my conception of the place of the medical profession in public health matters is exactly where the legal boards stand with regard to the administration of justice. They hold such a position locally, so in-

fluent, that they are seldom ignored. The Bar Association offices are provided at the expense of the county. The Medical Association is concerned about an infinitely more complex problem, with a greater need for disciplinary control over its membership, but with an achievement for the last 50 years of public health contributions the like of which has not come close to any organization spiritually, financially or economically inclined. If that is true, Dr. Overton's remarks are correct. The problem of public health regulation belongs in our county and in our state societies. So long as commissions are founded like this, it makes no difference what a man's training may be—he be the most learned or the most humble individual—the problems involved in the application of medical knowledge are of the same value. We may as well realize that this is not a privilege we have asked for, but it is our bounden duty to future civilization that we aggressively inject ourselves into the scheme, and interest ourselves in state government, so that the mechanism behind all public health administration shall be under proper supervision. That, is my thought.

Your problem in New Jersey is being dealt with splendidly, and I understand your enthusiasm, but there are some precautions to be kept constantly in mind. We are fortunate, in Pennsylvania, in having a Director, or Secretary, of Health who is an ex-president of the Medical Society of Pennsylvania, and yet he is in a political position where his appointment must be safeguarded. It is unfortunate, for I do not know any one who could do the work quite so well as he is doing it, but he may be forced some time to place the medical society in an embarrassing position. I can readily see the advantage of having the administration of State Health Departments more directly under control of physicians accredited by our medical organizations; and with a proper tie-up we would have less fear of *state medicine*, and less fear of exploitation of the profession. But, gentlemen, solution of the problem concerns us more than that. Let us get away from even the *thought of selfish interests*. What is back of the social lay groups with salaried officers? Their desire to be more firmly fixed in the economic scheme of things so that they cannot be removed from their positions. They go in, perhaps, with an idealism, and they meet with practical rebuffs, as we all do, but the untrained individual, without the ethical background to understand the enviable associations connected with our practice of medicine, see only one thing—an immense amount of work to be done in the county. The physician who treats the borderline charity patient for a fee—and incidentally helps to elevate that individual from the position of a parasite, by bringing to his psychology his economic responsibility to care for his own health—immediately takes away from the volume of the social worker who is untrained and perhaps without ethical standards. She makes such a matter as that public, to the detriment of the entire medical profession, because her psychology, not properly tempered by our age-old traditions, is such as to see only the immediate consequences of the loss of a case.

I cannot see beneficial possibilities in the County Health Unit plan unless the State Medical Society has reached its point of active control of the public health problems of the state. Once that is achieved, it should be the object of the State Society to have control of it. I think we shall find that if *state medicine* comes it will be according to the dictates of the medical profession, for that

will present the only decent solution which we can leave to posterity.

Dr. J. B. Morrison (Newark): You, in New York State, are going far afield, I fear, from what we are trying to do in the neighboring states. You may be conducting a systematic study of these public health problems, but I fear that New York State is drifting closer to *state medicine*, through these efforts, than any other state in the Union. I think that the trend toward *state medicine* will be fostered in New York unless an effort, a continuing effort, is made to keep these public health matters in the hands of the medical profession. As we have heard in this discussion, doctors are not sufficiently well paid to give their time and effort, and doctors are ignored by certain lay organizations; if that state of things continues, the interests of the medical profession will be submerged and the interests of the politicians will continue to gain. If these county health affairs could be worked out on the basis laid down by Dr. Overton, then the result might be ideal.

I have not had time to study this Commission's report, therefore I am not in a position to discuss it properly. One or 2 questions arise, however. What would be the difference between the County Health Unit and the County Health Board? It seems to me there would be a clash of authority all along the line. Would these *units* do away with the *boards of health* in large cities? And, do not the disadvantages of this plan seem to outweigh its advantages? What would be the demarcation line between the powers of the *State Board of Health* and these *County Health Units*?

Dr. Ephraim R. Mulford (Burlington): It seems to me that in New York you are on the stepping stone to state control of the practice of medicine. In New Jersey, the county unit system of health control has not been developed, as I understand it. Some of the other states, and many of the larger cities, have well-planned, well-organized and fully operating departments of health. The great difficulty in New Jersey has been that the health work has not been under the direction of the medical society; and, I believe, the state and county medical societies have developed a lethargy in regard to the study of health work. As Dr. Lawrence and Dr. Farmer have pointed out, in many instances, the medical profession has been asleep while some laymen who have been devoting their lives to the work, have developed plans of organization, and have plunged in ahead of us. We are, ourselves, responsible for this lethargy. There is a plan now under discussion, in New Jersey, for a re-organization of the State Health Department. We hope some good will come from just giving thought to it.

Dr. George N. J. Sommer (Trenton): I can add very little to this discussion except to outline a system that is pursued in the county in which I live. The City Health Department, in Trenton, is under the direction of one of the Commissioners. The city appoints a full-time Health Officer who also has charge of the Police and Fire Departments, each department having a Surgeon, and the City Poor Relief has 2 physicians engaged on a part-time basis. The work of the health department includes the Baby Keep Well Stations, a Venereal Clinic, and a Tuberculosis Service whose officer is supplied by the State Sanatorium. There is also a pre-natal clinic which is looked after by the woman physician who directs the baby stations.

The county units are on the basis of township government, each township having a health board and a physician who attends the school, is health inspector, and has sundry other duties too numerous to mention, and who gets a very meager salary. The County Board of Freeholders pays for care of the indigent in the various hospitals, and up to the present year, since when they have been forced to consider economy, they paid a small fee, 50 or 75 cents, to hospital dispensaries for each indigent patient treated free of charge. It is the thought of the hospital with which I am connected, that no one wishes to have charity thrust upon him, and every patient coming to the dispensary for service is questioned as to his ability to pay and his condition is investigated. No *first treatment* is charged for, but it is understood that if they are unable to pay the regular medical fee they should pay something, and a minimum fee of 25 cents has been established. That has helped to pay for the social department of the hospital. At the same time those who have been found able to pay have been recommended to go to their family physician. Under that system, the amount of work formerly done in the dispensary has materially diminished and its income has materially increased. I, personally, believe from my contact with ward patients for 35 years that the ward patients in many instances are more than willing to pay for the service rendered provided that charge is made reasonable. I have an abiding faith in the general principle that no person likes to feel that he is a pauper. They are all willing to pay something, if the matter is put to them in a proper light.

I understand that the hospital's Out-Patient's relief is on the basis of investigation by the Social Service Department. However, I know that such investigation often-times falls short, and I have known individuals to come to our state institutions from Pennsylvania, at an expense to our county, who have afterward been found abundantly able to pay for medical care.

Again, the city maintains a tuberculosis hospital for care of the indigent tuberculous, and the county authorities, not being particularly favorable toward this institution, like to shift the patients elsewhere, the rates being about the same, and there again comes the clash of authority. This is a big problem and communities are laws unto themselves and must solve their problems in their own way.

Dr. Walter S. Brenholtz (Williamsport, Pa.): This being my first attendance at one of these conferences, Mr. President, I came more to listen than to talk, but I must say that I am very much impressed with the importance of these addresses; all 3 of the speakers having given me a great deal of food for thought.

If we could have as health commissioners, and as governors, men who would be perfectly honest, and could do what they really think should be done, after receiving the advice of the medical profession, we could accomplish a great deal more than has been recorded under a system where politics controls. We have been working in our county for several years, trying to get members of the medical profession interested in public health matters, but with small measure of success. The first thing to be accomplished is that physicians themselves must be educated as to what is their duty and what their individual responsibility.

Several years ago we had started in our county a number of well-baby clinics, but we soon reached

the stage where the title was a misnomer. Nurses were going around getting business. They were sending postal cards to mothers as soon as a birth was recorded, urging them to bring their babies as soon as they were old enough. This was done in order to make a big showing. In Williamsport, our men, who were giving their time and attention to that work for nothing, after this matter had been taken up and resolutions passed by the County Medical Society, refused to do that work any longer along the lines upon which it had first been started. Quite a little has been accomplished along that line, but to show how politics will enter into these so-called public health questions, no matter how honest the Commissioner of Health may be, he cannot show his hand but must keep it under cover and it is rather difficult for him to work. We have, in Pennsylvania, as good a Commissioner of Health as can be found anywhere, yet I suspect that he has to consider politics many times when he would prefer to think only of the proper thing to do.

Now, aside from the interference of politics in the usual ways to which we have grown accustomed, I feel that *state medicine*, in Pennsylvania, is just around the corner, and that it is bound to come into full control. It is claimed by some that physicians are doing more toward bringing that about than are the lay people. I think we must get together as a unit, if possible, although that seems almost an impossibility, because we have in every county medical society certain individuals who will not coöperate and permit unanimous action, and who will not abide by any rules or regulations that a county society may adopt. I have enjoyed and appreciated the addresses and discussions today and hope that we may all have gotten some new ideas which we will be able to go back home and work out in some plan to help prevent *state medicine*.

Dr. Frank C. Hammond (Philadelphia): I would like to limit my discussion to just one point considered by the Joint Committee, and that is in regard to maternal and infant hygiene. The report says: "The confirmation was amply brought out at the recent White House Conference, and elsewhere, that the improved education of doctors and nurses was one of the most important factors in providing safe and satisfactory obstetric care. It is essential that this be recognized, and this recognition is of greater consequence than the recommendation that adequately organized, county-wide health services, constitute the most important element in providing the needed services for reduction of the maternal and infant death rates. The function of a health department should be rather of a supervisory character, by establishing standards for proper obstetric practice and by making studies of state-wide conditions, the results of which may be applied to the solution of local problems."

Notwithstanding the fact that obstetrics has been brought to a high grade of teaching, I think it is an accepted fact that the morbidity and mortality is the same as it was years ago. What can we do to reach the groups of men who are practicing obstetrics to bring them to a realization of better practice and better pre-natal care? Notwithstanding the modern method of treating obstetric cases, and the proper preparation of the physician to meet his maternity case, it is a fact that we cannot make the general practitioner see that a woman in labor should be handled the same as a major surgical procedure. Those of you who go into homes where physicians are doing mater-

nity work, know that you seldom see such an average general practitioner in his sterile gown and gloves. The statement is frequently made—that the family doctor will not even properly prepare his hands. I have in mind a certain city where a survey was made several years ago, in regard to midwives doing obstetric practice, and to see what could be done to legislate midwives out of existence. The health department of that city was dumbfounded to find that the obstetric morbidity and mortality rates were negligible in the hands of midwives and the investigation resulted in a bad showing-up of the medical profession.

I know of another very large medical center, with 2 large maternity hospitals, where it is said that they rarely see a case of puerperal sepsis in the hands of the medical students in outside service. Even when they have been in charge of the patient, and the patient had to be sent in for hospitalization, they rarely have puerperal sepsis. But the authorities are concerned about the number of septic cases developing when the patient has been delivered in the hospital; and that is hard to understand.

Whether the state can reach all these groups in any different way, I do not know, but it is certain that all groups must be reached. Those of us who are interested in this particular field have worked hard to make the practitioner of medicine see the need for proper pre-natal care of his patient, and proper care while in labor, and urging him not to delay in calling someone in consultation when the necessity arises.

Now that brings up the real crux of the large fetal mortality. General hospitals, both open and closed, and private hospitals, must be taken into consideration for the large majority of women are now delivered in hospitals. The general hospitals that are closed have a little better control over their staff than do those that are open, because the open hospitals have such a large number of men on the "courtesy staff" and these men must adapt themselves to the technic of the operating room of that particular institution. The trouble is that the men who are doing obstetric practice and who are not trained in that work, are apt to allow their patients to go for an indefinite time in labor, and the consultant is called in too late to deliver a living baby. In the institutions with which I am personally connected our great difficulty is to get the men who are doing obstetric practice to call in a consultant in due time, and the minute we try to establish a *ruling* they say we are interfering with their practice and forcing consultation upon them unnecessarily. We try to make them understand when their competence has reached its limit, and that they should then seek consultation, but it is hard to handle that group of medical men. I do know of some general hospitals where the nurse in charge of the maternity service is diplomatic. She can naively suggest to the practitioner that it is time to have some one see the patient, but the average general practitioner resents any interference from any one connected with the maternity service who is not a physician. Some women in charge of these departments are able to handle the situation very diplomatically.

However, when the state goes so far as to have its health department supervising obstetric teaching, well—it becomes one of the biggest public health problems.

Dr. Henry O. Reik (Atlantic City): Mr. President, I cannot discuss the subject under considera-

tion today, but will take advantage of the opportunity to speak of another matter. I had to leave the room for what I supposed would be a few moments but was detained so that I had to miss 2/3 of the program; which I much regret.

This is our twentieth Conference, and it has always seemed to me that one of the best things that has come out of our sessions has been *publication of the proceedings*; because the discussion of medicine's most important problems by responsible representatives of the profession can thus reach all members of the 3 state societies, to be studied carefully in leisure hours at home; and that is in line with graduate education of the practitioner who is interested but too busy to search for such information. I hope that it will be possible for all 3 of those who made addresses today, to let me have within the course of a couple of weeks, not necessarily lengthy papers, but definite statements of the things that were said here today, and which led up to the discussion.

Considering what I did hear of the discussion, I think it is additional, confirmatory, evidence of the conclusion I reached quite some time ago regarding all of these questions, and that is—the medical profession has not as yet even attempted to properly perform its duty in relation to these problems. We wait until a Governor or a Legislature *does something*, and then we criticize the action; when, it seems to me, it had been our plain duty to study those problems and to have offered something in the way of a solution, something, at any rate, that would have been satisfactory to the profession, and *something constructive*—instead of continually finding ourselves placed in the position of *having to criticize* what others offer us. The profession must be awakened—aroused from its lethargy. It is a firm belief of mine that we can accomplish much in that line by publishing these reports, in full, in our Journals.

I believe the majority of our members (like myself), understand better what they can read quietly and comfortably at home than what they hear at a conference of this kind or at any medical meeting; which emphasizes my request that you assist me to place these papers and discussions before the members of our state societies.

Luncheon was served at 1.15 p. m., after which the following business was transacted.

Dr. Donaldson: The State Medical Society of Pennsylvania will be glad to entertain the next Conference, to be held in the month of May. Dr. Mayer, our President, would like to have you come to Pittsburgh but, at the same time, we would like to recognize practical conditions, and if you prefer that the meeting shall be held in Philadelphia, we will be glad to have it there. What we want is to have a large meeting, and we will, therefore, hold it wherever it best suits the majority. If Dr. Reik will send out a letter requesting your desires as to the time and place of meeting, I will appreciate it.

Dr. Lawrence: It has been a great pleasure to have you here, and, on behalf of the President and Secretary, we accept Dr. Donaldson's invitation to hold the next Conference in Pennsylvania.

Adjournment at 3 p. m.

Public Relations

AVIATION MEDICINE

(From New York Medical Week, Nov. 14, 1931, page 13.)

A little known phase of graduate medical education is being exemplified in Connecticut under the State Department of Aeronautics, for the training of properly selected physicians within the state to carry on the selection and supervision of flying personnel.

The first part of the school's work is based on the correspondence course as set down by the United States Army School of Aviation Medicine. The students are assigned a number of lessons to be completed within a certain period of time.

The second part of the work consists of practical training given at headquarters of the State Department of Aeronautics at Brainard Field in Hartford. The school is in session 4 hours once in every 3 weeks. The student physician reports to Hartford where work of past assignments is discussed, and a comprehensive quiz is undergone. The third part of the training is spent in obtaining flying time. Every student is required to fly at least ½ hr. every 3 weeks. Opportunities to fly are made possible through the state equipment of the civil department. A definite problem is assigned to each student, the solution of which, while in the air, demonstrates to him the connection between work done in examining applicants on problems met in the air.

In addition each student will spend a period in residence at Brooks Field where, among other things, he will be trained in altitude work. The Department is also in a position to send each student physician to one of the finest civic schools of aeronautics, where he may observe commercial training and contrast it to the military training received at Brooks Field.

It has been recognized that a very definite need exists in military aviation for the aviation nurse. A group has been formed, to provide for the air-minded nurse, the requisite training, leading to a pilot's license, so that nurses may be equipped to act either as nurse in a hospital or an ambulance plane or as hostess in a civil plane.

Appropos the ambulance plane it is interesting to know that the Order of St. John of Jerusalem and the British Red Cross are forming air detachments. The Surrey branch of the Red Cross has just received the anonymous gift of its first machine, a Desoutter monoplane, capable of carrying 2 patients. Loading is done through the port window, and can be accomplished in 45 seconds.

PUBLIC DOCTORING SELF MORE THAN EVER

(Editorial in Newark Evening News, March 21.)

The day has passed when the members of practically every family were dosed with sulphur and molasses at the coming of spring. But any impression that dosing with favorite medicines, proprietary and others, is a passing custom may be set down as all wrong. On the contrary, self-medication is increasing, it is reported to the New York branch of the American Pharmaceutical Association.

Every year there is spent in this country \$715,-

000,000 for medicine, or from \$20 to \$25 by each family. More than 50% of this goes for patent medicines, so-called, or secret compositions. About 26% is spent for doctors' prescriptions and the rest buys secret remedies.

The pharmacutists find no fault with this vast expenditure for treatment of what ails the public. There is discerned, however, a deplorable condition in the fact that some 80% of the total is spent unwisely, because of the absence of medical advice of any kind.

Dr. R. P. Fischelis, President, discussed this at a recent dinner of the New York body, and bespoke the adoption of some recommendations by a committee on the cost of medicine, of which Secretary of the Interior Wilbur is Chairman.

Among the recommendations is one that secret formula drugs and medicines be abolished by making it compulsory that the ingredients and their proportions appear on the labels. Manufacturers of drugs and medicines should be licensed annually, to insure standardization and quality of their products. There should be agencies for the dissemination of accurate information on home remedies and their proper use.

So, home diagnosis, and treatment with patent medicines is not falling off. There are no indications that it will.

State Health Department

CO-OPERATION WITH PHYSICIANS

J. Lynn Mahaffey, M.D., Director of Public Health, Trenton, N. J.

Closer coöperation between the State Department of Health and the Medical Society of New Jersey was emphasized by active participation of members of the Board's Staff, at the Annual Convention, in Atlantic City, June 14-17; and by distribution of a booklet by the Department, in compliment to the physicians of New Jersey.

Dr. J. Lynn Mahaffey, State Director of Health, said that "A fuller utilization of the services and facilities of the State Department of Health, by the Medical Society of New Jersey, is not only desired but welcomed, in promotion of the public health.

By reason of closer contact with the medical profession, the incipency of disease can better be detected and known corrective, assertive measures promptly applied. Re-organizing the State Department of Health, in 1915, the Legislature constituted, and has continued, the medical profession as the dominant factor in the department. It renders a many-sided service, dealing with preventive medicine, epidemiology, sanitary engineering, bacteriology, chemistry, public health law, vital statistics, food and drug control work including milk supplies, dairies and the shellfish industry, child hygiene with pre-natal work, and social hygiene. Its activities affect, more or less directly, the well-being of all residents of the state.

Proud of its accomplishments in the field of public health, the department points to the operating cost of 13.3 cents per capita for a population of 4,041,334. The state's general death rate of 10.6 for 1930, and again for 1931, was the lowest since the department was established 54 years ago. The

previous lowest rate was 11.4 for 1927. For 1931, the death rates for typhoid fever, diphtheria and tuberculosis were the lowest ever reached in New Jersey. Infant mortality, for 1931, was next to the lowest since rates were established in 1906.

Surely, a measure of credit for these remarkable showings may be attributed to the efforts of the Department, in supervision of water and sewage, foods and drugs, and laboratory routine; but capacities of the department have not been exhausted in the ever-increasing field of its work.

Compared to the per capita of 13.3 cents, expended by the State Department of Health, Connecticut's per capita is 20.1; Maryland, 26.9; Pennsylvania, 32.3; Massachusetts, 62.5; New York, exclusive of New York City, 76.4.

For the past fiscal year, ending June 30, 1931, the Department's appropriation was \$428,990.50. For 1921 it was \$358,906.22. To my 168 co-workers in the department, appreciation is expressed for their loyalty and devotion to the humanitarian tasks in which they are engaged."

On the State Society's Convention Program, were the following members of the State Health Department: Dr. Samuel A. Cosgrove, of Jersey City; Dr. Irvin E. Deibert, of Camden; Dr. J. Lynn Mahaffey, of Camden, Director; and Dr. Julius Levy, Consultant of the board's Child Hygiene Bureau.

Dr. Cosgrove's subject was "Treatment of Eclampsia", one of the most dangerous diseases of late pregnancy. "Infant Mortality in the First Month; Its Causes", was Dr. Levy's subject. Dr. Deibert's topic was: "Treatment of Compound Fractures by the Closed-Cast Method".

As an instance of coöperative work, Dr. Mahaffey related the gathering of blood serum last summer, donated by former infantile paralysis patients, which medical authorities believe assisted materially in arresting the dreaded epidemic.

Attention has been called by the State Board of Health to the failure of the Legislature to provide funds to enforce the 1932 law for licensing and inspection of milk producers and distributors beyond the confines of New Jersey who ship their produce into the state. The statute became operative July 1. Application of the law is causing anxiety to milk producers, distributors and the State Board of Health. The statute makes mandatory the issuing of permits by the Department, after inspection of all the sources of milk coming into the state. To make such inspections for the issuance of permits is time-consuming and tremendously expensive, and the Board is required also to make similar inspections within the state where local boards fail to make them. The State Board will do all in its power to obviate confusion on this point but is seriously crippled in coöperating with the producers and distributors because the Legislature has not provided any funds to prosecute the work.

The Board formally submitted to the Governor and Legislature, and to a joint meeting of the appropriations committee of the Legislature and budget assistants, a request for money to enforce the 1932 statute, but the Department's budget was not only cut 25% but the Bureau of Food and Drugs, upon which enforcement of the statute will fall, has also been reduced by 25% in its appropriation.

Communications

SOCIAL INSURANCE BY DR. EDWARD H. OCHSNER

Quality of Medical Services Deteriorate Under Compulsory Health Insurance

(Continued)

Some 15 years ago, when the prices of eggs and chicken feed were at their highest, I wrote to my farmer and asked him why he was not sending us any eggs, and I received the following laconic answer: "The pullets look good but lay no eggs." Superficially examined, Compulsory Health Insurance "looks good" but unlike my pullets it has laid many eggs, most of which were added.

When we substitute governmental control in medicine and dentistry for independent individual action, we stifle self-expression, individuality, initiative, courage, confidence, enthusiasm and industry. We, as a nation, are already over-standardized. The very individuals who wail loudest about the evils of mechanization are often the ones who clamor most for more government control. Excessive bureaucratic and lay control have much the same spiritual effect upon the professional man as over-mechanization has upon the intelligent craftsman. They both have a tendency to crush out fortitude, ingenuity, and pride of achievement. With some, standardization has become almost a fetish, in spite of the fact that when pushed too far it always results in mediocrity. The efficient successful practice of medicine always has been, and always will be, a personal unstandardized affair.

That the quality of medical services has deteriorated in those countries which have Compulsory Health Insurance, is due to many causes, among which may be mentioned the excessive number of calls upon the time and energy of the physician. Those who receive free medical services are constantly running to the physician for some trifling ailment, or compelling the physician to make many unnecessary calls at their homes. Every Krankenkasse physician who has been interviewed has stressed this fact. Baeumer states, in his book, that between 65 and 70% of all calls are unnecessary, consume the time and energy of the physician and the resources of the Krankenkasse, and prevent adequate medical services and hospital care to the really sick. Liek, in his book, says the number of trivial conditions, such as "microscopic skin abrasions", disgusted him so much that he retired from the service. This abuse has grown to such proportions in Germany that the government has been compelled to issue new regulations to the effect that the insured have to pay a certain fee out of their own pockets for each prescription. This, again, has given rise to new abuses. A common sequence of new regulations to correct one abuse is to create an opportunity for newer ones. In England, unnecessary night calls became so common that many panel physicians disconnected their 'phones between 10 p. m. and 7 a. m.; a fine state of affairs if some patient has a strangulated hernia, an attack of gall-stones, colic or an acute appendicitis, at midnight. We have all, repeatedly, seen and heard the statement that workers in this country do not have medical services when they most need them; namely, at the beginning of an illness. Claim is made also, that were prompt services available at such time much serious illness could be prevented. Con-

clusive proof that private practice is more prompt than Compulsory Health Insurance practice, is evidenced by the practice in England of avoiding night calls, and by the fact that the percentage of pus appendix cases, which necessitate draining, is much greater in Germany than in the United States.* We all know how the mortality rate is increased by letting acute appendicitis progress to suppuration before operating and how much longer the period of hospitalization is in suppurative cases. If acute illnesses had more prompt and more efficient treatment in Germany, for instance, than in the United States, suppurative appendix cases should be much less frequent, the mortality rate should be lower, and the morbidity shortened. As a matter of fact, the reverse is true, which proves rather conclusively that medical services in the United States are more efficient than those in Germany.* Such abuses result in endless rules and regulations. Rules that accomplish little except to cramp the individuality and personality of the conscientious physician, wear him out with paper work, and leave little time and energy for professional study and advancement. One official described his plight in the following words: "I've settled into official routine; I'm fixed there, hard and fast. It's so with many of us. Most of us recognize the hopelessness of ever pulling out. As I sometimes confess, I am merely one of the unburied dead."

That Compulsory Health Insurance does not, in fact, prevent sickness nor reduce economic loss as the result of sickness is also proved by the following facts. Before the World War the average loss of time because of sickness of the American laboring man was 6.2 days per year; of the German, 9.2 days; the Austrian, 9.5 days. We are credibly informed that since 1923 the loss of time in Germany has increased another 80% above the 9.2 so that it now stands at approximately 16.5 days, as against 6.2 in America. A fine showing for Compulsory Health Insurance after 48 years of operation.

Let us see what some of the German and English think about the scheme. A high salaried German health insurance official said, in 1927: "Health insurance is the oldest branch of German social insurance provisions. The sickness insurance law of June 15, 1883, was the corner-stone of the proud building for which we were envied by foreign nations before the war. Unemployment insurance will, I hope, in the near future become the capstone of the building." To which Edwin Liek, a practicing physician of Danzig, makes the following retort: "This is an expression familiar to physicians, words that we have frequently heard during the past 4 decades. Only, now they affect us differently. In the beginning, the doctors believed these dulcet tones; today, only *parasitic physicians* or *pure fools* join in this festive song." And again he says, "Social insurance is today organized to fill the feed trough of *bureaucratic drones*." At a recent meeting of the Trade Union Council, in Nottingham, England, a resolution was passed unanimously demanding that the Government overhaul the Department of National Health.

That the average American citizen is getting better medical service than are the citizens of those countries which have had Compulsory Health Insurance the longest, is borne out by the cited statistics, the quoted opinions as well as by a rather extensive personal experience both in this country and in Central Europe.

(The next 2 articles will show how Social Insurance undermines national character.)

*(The Editor is *presenting* but not *endorsing* this and several similar statements in this letter. In this instance, Dr. Ochsner, referring to night calls received by English physicians, says many panel physicians have their 'phones disconnected between 10 p. m. and 7 a. m. Later, but in the same paragraph, he cites that statement as "conclusive proof that private practice is more prompt than Compulsory Health Insurance practice". It is rather difficult to see how it affords *conclusive* or any other kind of *proof* of the alleged fact. There are too many factors involved to permit the drawing of such a conclusion. Similar criticism may properly be made of other emphatic statements in this letter, but, we shall only express the hope that his following letters will present something better in the line of "proof", for Health Insurance is not going to be put to rout by argument such as we have mentioned.—Ed.)

HOSPITAL DIRECTORS VS. THE MEDICAL STAFF

(A letter from S. Rubinow, M.D., Newark, N. J.)

What should be the relationship of the Board of Trustees of a hospital to its Medical Staff, and what are the responsibilities of the Medical Staff to the hospital?

The Academy of Medicine of Northern New Jersey devoted its stated meeting of May to a consideration of the questions. The members of the Academy are indebted to its President, Dr. Wells P. Eagleton, for his timely efforts to bring before the Academy a series of the most important medico-communal problems. It is only to be regretted that these meetings were limited to presentation of the involved issues, by the invited guest-speakers, and discussion by the members was definitely discouraged. Some members surely had ideas of their own on the subjects presented and one would think it a function of the Chair to stimulate a frank exchange of those ideas. It is true that there is generally a definite reluctance on the part of members to express themselves from the platform as freely as they do outside after meetings. But this reluctance, one believes, could be overcome to a certain extent, if the meetings were not so quickly adjourned after the address of the last guest speaker.

As might well have been assumed, the key-note of all the addresses by Hospital Trustees was the necessity of full coöperation between Board and Staff. It has been admitted that the purely medical problems are within the sphere of activities of the Staff, the administrative functions pertain to the Board; and it was insisted that the final decision on any question must rest with the Board. One has no quarrel with those conceptions but, apparently, they have so far not worked out to the full satisfaction of both bodies. Otherwise, this meeting would not have taken place and we would not have to face the fact—resignation of the entire medical staff in one of our institutions—a staff which, according to the statements of Dr. John F. Hagerty, President of the Medical Society of New Jersey, has been for years doing splendid work. There is considerable unrest among physicians and the board in another large institution in Newark. It is evident that this essential coöperation between board and staff is not of the same degree in all institutions; in some it is better than in others, but conflicts do at times arise and methods must be devised to bring the 2 bodies to a better mutual understanding and into closer coöperation.

One is of the opinion that there are some inherent defects in the present scheme of hospital administration, defects which should, first of all, be corrected.

In a country governed in accord with democratic principles, institutions must be conducted on similar principles. Autocratic methods are bound to arouse, sooner or later, opposition and resentment which prove to be fertile grounds for disruption of unity.

In times past, the so-called "private hospitals" have been brought to life by a few philanthropic, wealthy citizens of the community, sponsored by a small group of physicians. They were organized on a small scale, with small budgets, and in cases of deficits their trustees managed to cover them by their individual efforts. But, during the last decade, those small hospitals grew into large institutions, constructed and supported by the whole community. As such, they belong now to the entire community, and the boards of trustees should represent all the various strata citizens of the community. The principle of election to the board, and the responsibility of the board to the community, must be recognized. It is immaterial whether the whole community, or part of it, or only a few hundred citizens, interested in the welfare of a given institution, are participating in the election; but, at certain definite intervals, the trustees should render to the community an account of their activities and their policies, and they should be subject to open criticism, vote of confidence, and reflection. At present, most such boards represent small, self-perpetuating bodies, arrogating to themselves control of the institutions belonging to the community as a whole. "Are the board members elected by the community? They certainly are not. If a vacancy occurs, by death or resignation, how is it filled? By the remaining members of the board. Whom do they select? Naturally, their friends. They are not to be blamed for it; the fault is in the system. The result is that each board is made up of a socially homogeneous element, which does not tend toward broadness of view. (From an Address by Judge Horace Stern, of Philadelphia.)

There is no intention to cast any reflections on the membership of such boards of trustees. The writer is second to none in his appreciation of the services rendered to the community by a great many individual trustees, who devote their time, energy and means toward the betterment of community life. But it goes without saying that if the boards would represent and be responsible to the whole community, they would gain in respect, loyalty and support from the community at large, and from the medical staff in particular.

So much for the constituency of the boards of trustees. If one turns to organization of the medical staffs, one will find, as could be expected, sufficient cause for justified criticism. Here are, by far, more personal interests involved and, consequently, a greater field for personal grievances. The lack of democratic principles here is destructive to the necessary discipline and coöperation. The lay boards are quite aware of this fact and, therefore, do not look at the staffs as united bodies, which have the interest of the institutions foremost at heart. One familiar with the life history of our hospitals, knows that appointments are, in many instances, based neither on merits nor on seniority. Trustees are in no position to judge the qualifications and character of the large body of physicians connected with the hospital. All the medical appointments should rest in the hands of a

medical executive committee, elected for certain periods by the whole medical staff. Membership in the medical staff should be limited to those physicians who for a certain, definite time, say 3 or 5 years, have been working for the institution and have proved to be useful to it. This medical staff should likewise, elect all other committees. The division into senior and junior physicians, has justification only when applied to *services*, but there must be only 1 general staff, organized on the principle above outlined.

Such a scheme is based on democratic principles and is likely to produce better results and eliminate many conflicts. Decisions by an elected body will carry more weight than those made by one or a few men appointed in a haphazard way. It is not claimed that the proposed method is ideal, for no ideal methods can be devised in the sphere of human organizations, but as long as one still adheres to Jeffersonian ideology, one does not see a better plan. If our conceptions should turn to any other form of government there will be time enough to change front.

After the above essential changes have been effected, when the board of trustees shall represent the entire community and be responsible to it; when the medical staff is re-organized on more democratic lines; a joint committee, consisting of an equal number of trustees and physicians, elected by the entire staff, would seem to be a proper body to manage the complex medical administrative problems of the hospital, and to render reports and recommendations to the full board of trustees for final approval. In this way, one believes a more cordial and efficient coöperation will be effected between the 2 bodies who have the welfare of the institution most at heart.

CHRONIC DISEASE CONDITIONS IN NEW JERSEY

Summary of an Investigation and Study Directed by Commissioner William J. Ellis, Department of Institutions and Agencies, Trenton, N. J.

The Department of Institutions and Agencies has just submitted to the Governor, and to the Legislature, a "Report on Chronic Disease Conditions in New Jersey", made in accordance with Joint Resolution No. 3, P. L., 1931.

Findings of survey. This survey indicates that there are 150 chronically ill persons for each 100,000 of New Jersey's population, or approximately 1 for every 650 residents. It appears that there are from 6000 to 7500 patients suffering with chronic diseases and under the care of various agencies, and since similar studies indicate that but 1/3 of the chronically ill are known to welfare agencies, it is safe to estimate that there are more than 20,000 chronically ill persons in the state.

About 70% of all the chronically ill known to welfare agencies are under the care of institutional agencies, and 30% under the care of other agencies. Only 5 chronic diseases account for more than 50% of these patients, thus: Diseases of the heart, 17%; arthritis and rheumatism, 12.1%; cerebral hemorrhage and shock, 11.2% cancer and other malignant tumors, 6.9%; paralysis from other causes, 6.2%.

Almost 20% of the chronic disease patients were under 40 years of age; 5.5% were under 16; and, 12% were between 16 and 39. More than 50% of the 2032 patients studied were under care of health

and social agencies for more than a year; 37% from 1 to 5 years; and about 15% for more than 5 years. Of 1817 persons chronically ill, about 63% were totally, and the remainder partially, incapacitated.

A comparison of the *care needed* with that *received* by 2187 patients, showing that less than 1/2 of them were rendered full and suitable care; leaving 1164 persons for whom modification of care provided would be necessary to become adequate to their needs.

Program for the chronics. There are a few institutions in New Jersey which recognize care of the chronically ill as their own special function and adjust their programs and facilities to such work.

In order that our chronically ill may have the required care, it will be necessary to enlarge some existing facilities and adapt others to these special needs. First, consideration should be given to the use of home care, nursing homes, and homes for the aged, then general hospitals, welfare houses, alms-houses, and hospitals for chronic diseases, may be utilized to a greater extent than at present.

Welfare houses and alms-houses. Although many of the inmates of New Jersey alms-houses are chronically ill, these agencies are seldom properly equipped to give the medical or nursing care required. The alms-house is likely to be the ultimate refuge for most of the indigent or semi-indigent chronics. The counties and municipalities will, therefore, in all likelihood, be faced with the necessity of establishing better provisions for their sick indigents.

Hospitals for chronic diseases should combine the services of a general hospital and a nursing home, designed to give the chronically ill such *specialized medical care* as is available to the *mentally ill* or the tuberculous; having a *hospital section* to provide *medical care* and a *custodial section* for *domiciliary care*.

Home care. Some of the chronically ill are cared for in their own homes, happy under familiar surroundings. It is the responsibility of the community to provide adequate nursing service, with a sufficient number of visiting nurses to render proper service to the patients and advice to the families. Public funds should be available for those needy families requiring assistance in caring for chronically sick members.

Nursing homes. These agencies are equipped to give nursing or custodial care—intermediate between that of home and hospital—to patients of moderate means. They are subject to state inspection and license, and they assure proper treatment under standards requiring that a graduate nurse be in charge and that there be no less than 1 nurse to 5 patients.

Homes for the aged, by their very names, imply care for the chronically ill, but few have hospital or infirmary units and resident nurses. Although some have been more progressive in these respects, all homes for the aged must recognize their responsibility and broaden their admission policies regarding the chronically ill. Every such home should have a graduate, or experienced, nurse and make satisfactory custodial care possible.

General hospitals, as at present organized, do not find it advantageous to give prolonged care to chronic patients, because it is outside routine procedures and out of proportion, in cost, to the needs of the patient. To care for such patients, it may be feasible to: (1) Establish special wards; (2) affiliate with convalescent or nursing homes, to assure care for the chronic after passing acute

illness; (3) extend dispensary and special clinic services, with sufficient social-service-trained nurses to carry into the home prescribed methods of care.

THE CANCER PROBLEM IN NEW JERSEY

In 1931, 11% of the 44,135 deaths in New Jersey were due to cancer. Competent authorities estimate there are 3 times as many existing cases as there are cancer deaths, which brings the total of cancer cases in the state to more than 14,000, in the year 1931. In view of this, cancer must be recognized as a public health problem of the greatest importance.

Compared with the "minimum standards" of the American College of Surgeons, facilities for the care of cancer patients in New Jersey are, as a whole, inadequate. Our present knowledge concerning cancer must be made more effective, through the formation of *special cancer services and clinics in general hospitals* under the guidance of members of the Medical Society. There must also be enlisted, the services of a skilled tumor-pathologist; representatives of surgical, medical and radiotherapy departments; and representatives of special departments such as genito-urinary, gynecology, and nose and throat surgery. The cancer problem is receiving increasing attention on the part of the medical profession.

Acknowledgments. Among the organizations which assisted actively in this study are: Essex County Health Council; Newark Welfare Federation; Hospital Council of Essex County; Associated Catholic Charities of Newark; Jersey City Health Council; Hudson County Tuberculosis Clinics; Monmouth County Organization for Social Service; Metropolitan Insurance Company's Nursing Service; New Jersey Hospital Association; Medical Society of New Jersey; and the New Jersey State Crippled Children's Commission. The Bureau of Vital Statistics, of the New Jersey Department of Health, furnished the data pertaining to mortality from chronic diseases. Dr. Arthur H. Estabrook, Scientific Associate of the American Society for the Control of Cancer, assisted in many ways, especially in the section dealing with cancer. Miss Mary C. Jarrett, of the Welfare Council of New York City, gave helpful suggestions for organization of the survey.

The Department of Institutions and Agencies wishes to express its appreciation to the many health and welfare agencies which so generously furnished information, and gave valuable advice.

The report was prepared jointly by the Divisions of Research and Medicine, through Drs. Emil Frankel and Ellen C. Potter. Acknowledgment is made of the valuable advice concerning the medical aspects of the survey by Dr. Ambrose F. Dowd, a member of the State Board of Control of Institutions and Agencies; Dr. H. C. Barkhorn, ex-President of the Essex County Medical Society; Dr. Earl H. Snively, Medical Director of Newark City Hospital; Dr. George O'Hunlon, Medical Director of the Jersey City Medical Center; Dr. William J. Monaghan, Superintendent of the Hudson County Hospital; Dr. Edwin H. Van Deusen, Visiting Physician to the Vineland Training School; and Dr. Henry O. Reik, Executive Secretary of the Medical Society of New Jersey.

CORRECTION

The examination of the American Board for Ophthalmic Examinations will be held, Monday, September 19, 1932, at Montreal, at the time of the meeting of the American Academy of Ophthalmology and Oto-Laryngology.

PERPETUAL MEMORIAL FUND

Dr. John B. Deaver

(A letter from Dr. Francis Heed Adler, Secretary)

The Aid Association of the Philadelphia County Medical Society is establishing a Special Perpetual Fund in honor of Dr. John B. Deaver, surgeon, teacher, and humanitarian, only the income of which will be used to afford aid to needy physicians and their families. All friends of Dr. Deaver are invited to participate. Any amount given will help in creating a fund which will be a fitting Perpetual Memorial.

All money received will be placed in the Dr. John B. Deaver Perpetual Memorial Fund. Checks should be drawn to the order of the Aid Association of the Philadelphia County Medical Society and sent to the Secretary, Dr. Francis Heed Adler, 313 South Seventeenth street, Philadelphia, Pa.

Woman's Auxiliary

THE SKIN FOOD SKIN-GAME

(This is an abstract of an article written by Thyra Samter Winslow, published in the New Republic, Feb. 24, 1932.)

The average woman, tempted by pictures of luscious girls and marvelous promises of youth and beauty in the advertising pages of her favorite magazines, and yearning to look like a movie star or to get what she feels is her share of attention, resorts to the creams the department stores and the corner drug stores are selling. Or she buys treatments and creams in the neighborhood beauty shops. She cannot afford expensive massages and treatments. She shudders away from face lifts or face peels. But she grasps eagerly at the promises the beauty-racket advertisers make to her.

One of the most widely advertised brands of cosmetics, whose attractive packages are displayed in nearly every drug and department store, almost claims to perform miracles. In fact, the claims were so extravagant that only last year the government required that some of them be modified. Even now they promise quite a lot. One preparation to be used instead of soap—"a really marvelous preparation"—is shown by laboratory analysis to consist largely of precipitated chalk and a small amount of a granular soap. One might as well wash one's face with any of the well known toothpastes, which also consist of chalk and soap. One might even prefer the tooth paste because of the larger percentage of soap present. The price is, of course, extortionate for ingredients which cost so little.

A cream advertised to erase wrinkles, which the manufacturer says "corrects and prevents crows' feet, lines, shriveled eyelids, hollows and aging hands; nourishes thin, dry, wrinkled skins", proves, in the analysis to be "a white somewhat sticky ointment and to contain an essential oil of some spice, possibly nutmeg. Lanolin is no doubt present and, in addition, there is present probably lard and small amounts of petrolatum." In other words, this substance is merely an ointment base containing some essential oil. Lanolin is frequently used in toilet preparations of this type. Massaging with any well made cream will undoubtedly smooth out

the lines to some extent. The price, as usual, is high.

A fascinating whitewash of a generation ago is still being used and advertised, as are other whitewashes of little more value. This one contains, in \$1 bottles, just 7 cents worth of calomel and water. Other preparations contain epsom salts. And one very popular lotion to make you young-looking is a solution of alum, which draws up the skin nicely—but leaves it in an even more relaxed condition after a few hours.

An astringent which the advertiser does not hesitate to say "refines skin texture and imparts an ivory-like smoothness and purity of tone" is essentially a tincture of camphor—a solution of camphor in alcohol with some boric acid and water.

Another cream, extensively advertised and claiming to make the skin lovely—even the name is attractive—is a grease product containing ammoniated mercury (a poisonous salt), with zinc oxide and bismuth. Several other creams which are alluringly advertised contain the same grease base and ammoniated mercury.

Frequently the extravagant and artistic containers cost far more than the contents.

If you have an economic turn of mind, it might interest you to know that the 5 and 10-cent stores sell lipsticks and rouges and creams manufactured, frequently, by some of the same people who sell their products to department stores and drug stores. Sometimes these chain stores sell the cosmetics under another trade name. Then you get practically the same full-size lipstick for 10 cents that you might pay \$1 for a block away.

A decidedly unpleasant angle of the *beauty racket* is the blind advertisement. This is made to resemble a beauty column and recommends trade-name articles without the employment of capital letters. These creams and lotions are usually as shady as their advertising and in some cases contain ammoniated mercury and alum.

Nearly all doctors agree, these days, that if you are living in a city, or in a steam-heated house anywhere, you *may need* a skin emollient or softener. Certainly you will need a *pure soap*. And, usually, you will need in addition a *mild cold cream* to cleanse or oil the skin and perhaps even a skin food and a tonic for stimulation.

"Skin food" doesn't feed the skin! All medical authorities, I believe, agree on that. So, when you read extravagant claims made for a cream that is supposed to nourish from without, don't take too literally this manifestation of the beauty business.

Though "skin foods" are erroneously named, they may soften and help the skin to some degree when applied with trained and skilful massage. Astringents and tonics *will not cause large pores to disappear* although, in some cases, they may help the skin. If your skin is in a bad condition, you certainly cannot rely on the wild promises of manufacturers of cold creams. A skilled dermatologist should study the condition of your system and prescribe for you, for he may find that the trouble is excessive fat in the fat glands or, perhaps, seborrheic dermatitis, associated with dandruff of the scalp. Or your skin trouble may come from an *internal source*, because you are on the *wrong diet* or because you have peculiar food sensitizations. Or it may come *from an external source*, from silk fiber or the dyes of furs, or from Japanese lacquerware, or from some one of various plants. Or even from sunlight. The susceptibility of skins varies greatly and it isn't likely that you can be cured by experimenting with the

pretty jars on the shelves of the neighborhood drug store.

The most harmful creams are not those sold in beauty parlors or in drug stores to sensible adult people. The greatest harm is selling to the adolescent who wishes, not to regain youth, but to get rid of a "broken out" skin. Creams which promise miracles to these young people usually accomplish only harm. It's easy enough for the boy or girl, whose adolescent skin is in a bad condition, to buy one of these harmful preparations.

One of these creams advertises that it is "entirely different from ordinary ointments in that it is both a bleach and a skin purifier. You will be rewarded with fresh, clear, youthful beauty—smooth, white skin—not attained through any other skin treatment." It contains ammoniated mercury, which is so dangerous that it should never be applied unless ordered by a physician.

Most face powders, on the other hand, are harmless these days, though of course exaggerated claims are made for many of them. The powders loaded with impure zinc oxide and bismuth have about passed out, though some of them still exist. Manufacturers profit by charging far more than the powders are worth and by introducing a complicated color line. Each manufacturer makes 1 to 50 shades of powder, though, on the face, many of them appear similar. And, of course, each firm claims special virtues for its powder. The woman with a sensitive skin must experiment until she finds a powder that agrees with her—or have one mixed for her or recommended by a dermatologist.

Whole branches of the beauty business are still untouched. Do you want to get thin? Or fat? The racket has looked out for you.

The *get-thin racket* is the same old game it was years ago, in spite of the fact that it was exposed, as far back as 1921, by Dr. Arthur J. Cramp, in "Nostrums and Quackery", which Dr. Cramp compiled from articles in The Journal of the American Medical Association. Practically the same anti-fat cures exist—and there is a whole group of new ones—for the women who want to get thin by an easier and seemingly more pleasant and mysterious method than exercising and massage, and going without an excess of fats, sugars and starches in their food.

At one time, a woman, who is now a well known night-club hostess, lent her name to an anti-fat remedy. For years this remedy made money for the manufacturers. The night-club hostess did not benefit a great deal by the obesity cure. It isn't possible that she could, for it consisted of 1 lb. of alum, 10 oz. of alcohol and enough water to make a quart. This was a mail-order cure, for which you paid from \$20 to \$30, according to which letter of the follow-up series you answered. And the alcohol wasn't even declared, as required by the Food and Drugs Act. This cure has gone out, but it has been replaced by others more modern but just as ineffectual. One cure contains tablets which are a mixture of boric acid, cornstarch, milk, sugar and water, of which The Journal of the American Medical Association said, "It will reduce obesity only in those instances in which the boric acid so seriously impairs digestion that the patient loses weight from the resulting illness".

A famous and well advertised anti-fat bread is made from coarsely ground, hard, whole wheat which is preserved and flavored with ground figs, vinegar and salt. The *joker* here, lies in the fact that you are supposed to go on a diet as well as eating the bread. Dr. Harvey W. Wiley wrote of this bread, "There is one way in which it will re-

duce, that is, don't eat any of it or much of any other kind". This bread is still popular. So is another reducer which contains epsom salts, camphor, alum, soda and citric acid. You put this in your bath. It effervesces nicely, which undoubtedly has a good psychologic effect, but it is *utterly worthless* for taking off fat.

One of the best known fat cures contains thyroid, which, in many cases, actually will reduce fat—but, *thyroid is a drug which should never be given unless prescribed by a physician.*

Among the newer fat cures is the seemingly simple method of chewing gum. How pleasant to be able to eat all you want, chew a piece of gum after you eat, and get thin! Unfortunately, one type of gum contains the extract of pokerooroot and phenolphthalein; and another contains phenolphthalein as its only drug. And the purchaser is supposed to walk 5 miles a day and take other exercises besides gum-chewing! If you are going to take drugs, perhaps it might be better to take them as your doctor directs than to try those concealed in chewing gum, though the walk without the gum-chewing will undoubtedly help you.

If you are one of the fortunate minority who wants to *get fat*—I can't imagine it!—things are just as complicated for you, since most of the patented remedies are useless. Putting your money in good cream and butter and eggs, and milk and fruit and green vegetables, with olive oil and cod-liver oil to help out, and consulting a physician if you are greatly underweight, will give you far better value for your dollars.

For the care of the hair, for waving and shampooing and dyeing, go many more millions of beauty-racket money. A permanent wave, a development of the last 25 years, may cost from \$3 to \$50. Usually these are done skilfully enough, though there have been frequent reports of severe burns.

Hair dyes are less satisfactory. Usually they deceive no one, are never permanent and frequently dangerous. Innumerable cases of poison have resulted from the more harmful dyes. Hair dyes often contain lead or silver nitrate or other metallic salts, or paraphenylenediamine, and can prove detrimental to the health of sensitive women, resulting in dermatitis, infection, chronic poisoning or baldness.

The beauty business goes on. A hundred salves with a hundred promises. Liquids to grow hair—and salves to take hair away. Creams to make faces plump, and tonics to reduce "loose" skins. The business is built on one note—a searching, by millions of women, for a lost youth, an unattained beauty. And millions are spent, mostly in vain. So little can be done to restore a youth that is gone or to gain a beauty that never was. Facial surgery may be resorted to because of disfigurement or a great psychologic or economic need. It is expensive, painful and usually temporary.

Face peeling, when properly done, can remove scars, pittings and some forms of skin trouble, but there is always the danger of new scar formation, and of infection, and much of the produced tautness of skin is purely temporary.

Beauty parlors which employ skilled operators and handle reputable products, offer a great deal. Nearly all of the large manufacturers, and their branches, offer harmless and sometimes helpful beauty aids, if you do not expect too much of them.

Skilful masseuses, though they frequently promise far more than they can perform, by giving deep muscle massage very often do "tone" the muscles of the face and help the skin—make the patron

look healthier, and often younger. The more expensive youth-giving treatments still lack scientific recognition.

What can the average woman do to look well? For any real skin trouble she should consult a good dermatologist and not depend on the promises of the beauty parlors. Next, she might choose a beauty parlor and stick to it, one which is well known or handles reputable products, well aware that she is paying luxury prices. A few creams recommended by the favorite "parlor", are as good as a dozen, and will soften and help to smooth the skin. An occasional massage gives a sense of well-being, of good grooming.

Over the beauty business hangs the knowledge that old age will get you in the end. But, women continue still to spend millions for gay bottles and pleasant treatments, for glamorous promises and flattery, for temporary escape and luxury. Perhaps it is a small enough price!

Bergen County

Reported by Mrs. George M. Knowles

The Swiss Chalet was the place chosen for our Annual Meeting, and on Thursday, May 17, at 1 p. m., a very delicious luncheon was served. The tables were very pretty, and colorful with lilacs from our own gardens.

After luncheon, Mrs. Leroy W. Black, our First Vice-President, conducted a short business session.

Reports of the various officers and committees were read and accepted.

A ballot, containing the same officers as served this year, was cast, reelecting them for the coming year; in compliance with a request from National Headquarters.

The Annual Meeting was also changed—to May—for next year.

After hearing the report of the Program Committee Chairman, Mrs. Alexander, a standing vote of thanks was given for her splendid programs throughout the year. The vitally interesting subject of Child Welfare was pursued and, in line with that plan "Child Delinquency"—"Juvenile Courts"—and "Child Guidance Clinics"—were the titles of some of the talks we heard. Very well-informed and most interesting speakers were secured for us.

A vote of thanks was also given to Mrs. William K. Harryman and her Hospitality Committee.

The Auxiliary had quite a few new members elected this year, which is a good sign.

Mrs. Morrow, our President, who was unable to be present, was very much missed by every one.

After the meeting, we adjourned to another room to enjoy an afternoon of cards.

Camden County

Reported by Mrs. W. H. Pratt

A one-act play, election of officers, the Address of our retiring President and an account of the meeting of the Woman's Auxiliary to the American Medical Association, were the high lights of the Annual Meeting of the Woman's Auxiliary to the Camden County Medical Society, which was held at Log Cabin Lodge, Medford Lakes, on Tuesday, May 24. Mrs. Doane, President of the Philadelphia Medical Auxiliary, and Mrs. Odenatt, a Past-President of that organization, and others

from Philadelphia, Mrs. Hunter, of Westville, a Past-President of the New Jersey State Auxiliary, and others from surrounding towns, and one from Kansas City, were our guests.

After luncheon was served by the Committee, of which Mrs. Saunders was Chairman, the business meeting followed with Mrs. William C. Raughley, President, in the chair. Mrs. Raughley made a very pleasing address, at the close of her administration, and after the election of officers and directors, installed the following into office: President, Mrs. A. Haines Lippincott; President-Elect, Mrs. W. H. Pratt; First Vice-President, Mrs. J. E. L. Van Sciver; Second Vice-President, Mrs. O. W. Saunders; Third Vice-President, Mrs. E. G. Hummel; Recording Secretary, Mrs. Lester Wilson; Corresponding Secretary, Mrs. Harold Westcott; Treasurer, Mrs. Thomas P. McConaghy.

Directors: Mrs. William C. Raughley and Mrs. William A. Wescott. Other Directors whose terms have not expired are: Mrs. Edward C. Pechin, Mrs. Gordon R. West, Mrs. A. J. Casselman and Mrs. E. Reed Hirst.

Our new President, Mrs. A. Haines Lippincott, then took charge of the meeting and, on behalf of the Auxiliary, presented Mrs. Raughley with a beautiful pendant, which she acknowledged in her own pleasing fashion.

Mrs. Lippincott, on accepting office as President, made an inspiring address, showing some of the work that doctors' wives may do, and urging all members to work together to make our Auxiliary one of the most effective, if not the largest, not only in our state but in the nation.

She then appointed the following Chairmen of Committees: Legislation, Mrs. Joseph Roberts, Jr.; Membership, Mrs. David Bentley, Jr.; Finance, Mrs. J. Franklin Buzby; Hospitality, Mrs. O. W. Saunders; Public Relations, Mrs. A. J. Casselman; Program, Mrs. F. William Shafer; Publicity, Mrs. W. H. Pratt.

Mrs. Lippincott gave a very interesting account of the Annual Meeting of the Woman's Auxiliary to the American Medical Association, which was held in May in New Orleans, and which she attended; giving also a description of the French Quarter of that city.

The one-act play "Columbine", depicting 2 types of girlhood, the idealist and the realistic types, portrayed by Miss Louise Hummel, of Camden, and Miss Anne Clark, of Merion, Pa., was much enjoyed.

Accordion music was supplied by Mr. De John, of Philadelphia. A Board Meeting will be held on May 31, at 2.30 p. m. at the home of Mrs. Lippincott.

Essex County

Reported by Mrs. R. M. Rogers

The Annual Meeting, on May 21, was combined with a luncheon at the Newark Athletic Club, with 60 members present.

After lunch, the President introduced Mrs. Clayton D. Lee, former President of the State Federation of Women's Clubs, who gave a most interesting talk on "current events". She showed the relationship of the various events, one to another, and the topics she covered included: the great emergency in China; the Geneva Conference; conditions in England, Ireland and India; the French elections; and, the present Congress in our own

country; these and other topics being discussed with ease and apparent insight.

Mrs. Lee's address was followed by a rather short business meeting, in which the President gave her own Annual Report and called upon her committee chairmen for their annual reports. Particular progress was shown by the Membership Committee and the Special Committee for boosting membership in the Society for the Relief of Widows and Orphans of Medical Men of New Jersey.

Following these reports there was a reelection of the present officers by ballot of the Secretary; due to the fact that the date of the Annual Meeting was being changed from October to May.

Hudson County

Reported by Mrs. George M. Culver

The Woman's Auxiliary to the Hudson County Medical Society has a membership of 104, including wives, sisters and daughters of physicians.

We hold our meetings the first Monday in each month from October to May, and have had 8 meetings, 2 card parties, 1 reciprocity meeting, and a "play-day". We had our State Auxiliary President, Mrs. H. Roy Van Ness, as speaker at 2 of our meetings, including our reciprocity meeting. We also have had Mrs. Ethel Taneyhill, Field Secretary to the State Medical Society, who gave us a wonderful talk on Drugs and Nostrums; an original paper on "Germs in Our Daily Life"; a Scrap-Book Day, when the members read short articles along scientific, professional and educational lines; one meeting when Hygeia was stressed, and another meeting when one of our local doctors gave a talk and showed his pictures of a most interesting trip through Europe.

We have given \$100 to charity—in payments of \$25 to each of the following organizations—Boy Scouts, St. Francis Hospital Bread Line, the Y. W. C. A. Unemployment Fund, and Bayonne Day Nursery.

We have a "charity box", and at each meeting members are asked to contribute a small sum. This has been given to the Red Cross Visiting Nurse Association—for milk for under-nourished children—and this to date has also been about \$25.

We have complied, in so far as possible, with the wishes of the A. M. A., by appointing Chairmen to correspond with theirs; and the President of the Hudson County Medical Society has appointed us an Advisory Board of 3 physicians.

Officers and Chairmen of Committees: President, Mrs. George M. Culver; First Vice-President, Mrs. Henry Klaus; Second Vice-President, Mrs. Warren J. Duckett; Treasurer, Mrs. Harry J. Perlberg; Recording Secretary, Mrs. James Murphy; Corresponding Secretary, Mrs. Louis L. Perkel. Advisory Board, Mrs. William Freile and Mrs. John Nevin.

Committees: Health Education and Hygeia, Mrs. F. Nicholson; Public Relations, Mrs. F. Facciolo; Press and Publicity, Mrs. James Murphy; Membership, Mrs. J. S. McDede; Relief Fund for Widows and Orphans, Mrs. John Nevin; Telephone, Mrs. Peter Maras; Legislation, Mrs. A. Ruoff; Entertainment, Miss Ann Hetherington.

Physicians' Advisory Board, Drs. Louis Pyle, Hugo Alexander and George M. Culver.

Mercer County

Reported by Mrs. Francis E. Proctor

At the Annual Meeting of the Woman's Auxiliary to the Mercer County Medical Society, in the home of Mrs. William C. Ivins, she was installed as the new President. Others inducted into office were: Vice-President, Mrs. James J. McGuire; Treasurer, Mrs. John M. Maras; Secretary, Mrs. Francis E. Proctor; President-Elect, Mrs. Samuel L. Sica.

At the conclusion of routine business, a "tea" was given by Mrs. Ivins and Mrs. D. Leo Haggerty, the retiring President.

Monmouth County

Reported by Mrs. John C. Clayton

Mrs. W. K. Campbell was hostess to the Woman's Auxiliary to the Monmouth County Medical Society, on May 20.

The meeting was called to order by Mrs. William G. Herrman, of Deal. The regular business of the Auxiliary was transacted, followed by election of officers for the coming year: President, Mrs. C. Byron Blaisdell, of Long Branch; Recording Secretary, Mrs. John E. Maher, of Long Branch; Treasurer, Mrs. W. H. Guillum, of Asbury Park. The following Committee Chairmen were appointed: Hygeia, Mrs. Otto C. Holters, of Asbury Park; Press, Mrs. John C. Clayton, of Freehold; Public Relations, Mrs. Daniel Featherston, of Asbury Park; Program, Mrs. Stanley Nichols, of Long Branch.

Delegates were appointed to the Woman's Auxiliary to New Jersey State Medical Society's Convention, which will be held at Atlantic City, June 15-17, as follows: Mrs. W. G. Herrman, of Deal; Mrs. Frank Altschul, of Long Branch; and Mrs. William Von Oehsen, of Asbury Park.

Dr. Stanley Nichols gave a very able address on "The Cost of Medical Care". A general discussion followed.

The next meeting of the Auxiliary will be held in October, and the date will be announced later.

Ocean County

Reported by Mrs. Eugene G. Herbener

March Meeting

A meeting of the Woman's Auxiliary to the Ocean County Medical Society was held at the Lakewood Y. W. C. A. on March 17, at 2.30 p. m. Mrs. V. M. Disbrow acted as Hostess. The members of the Lakewood Goodfellowship Club were also in attendance.

After the regular routine, the meeting was turned over to Mrs. E. C. Taneyhill, who was the speaker of the day. One of her subjects which proved most interesting was the prevention and care of the "Common Cold" recently so prevalent.

Refreshments were served and the decorations were appropriate for St. Patrick's Day.

A vote of thanks was extended to Mrs. V. M. Disbrow, for the enjoyable afternoon.

The meeting was adjourned.

May Meeting

On May 20, the regular Spring Meeting of the Auxiliary was held at the residence of Mrs. Frank Denniston, Point Pleasant.

The election of officers followed the regular meet-

ing: President, Mrs. Alfred Woodhouse; Treasurer, Mrs. Blackwell Sawyer; the other officers remained the same. The following Delegates and Alternates were appointed to attend the June Convention at Atlantic City: Mrs. Frank Denniston, Mrs. V. M. Disbrow, Mrs. F. N. Bunnell; Alternates: Mr. Alfred Woodhouse, Mrs. Harold B. Disbrow, Mr. Eugene G. Herbener.

After a vote of thanks was extended to the hostess, Mrs. Frank Denniston, for the pleasant afternoon spent at her home, the meeting was adjourned.

County Society Reports**BERGEN COUNTY****Second Councilor District Meeting**

C. H. Littwin, M.D., Reporter

On May 14 the group meeting of the Hudson Passaic, Sussex and Bergen County Medical Societies, forming the Second Judicial Councilor District, was held at the Breakneck Hills Country Club, of Paterson. Dr. John Roemer, President of the Passaic Society, sponsored the meeting.

In the afternoon about 20 men played golf, and at 7.30 p. m., 48 of the Officers and Delegates of the 4 societies to the State Society sat down to dinner. Dr. C. C. Beling, Councilor for the First District; Dr. Frank Scammell, Councilor for the Third District; and Drs. George T. Tracy and Roscius I. Downs, Secretary and Reporter of the Burlington County Medical Society, were guests.

Talks of 10 minutes each were given as follows: "What the State Organization Is Accomplishing" by F. J. Quigley; "Compensation Problems", A. F. McBride; "The Increase in Malpractice Suits", S. T. Snedecor; "Medical Testimony", E. G. Waters; "Legislation to Control 'Gyp' Clinics", F. Manley; "Ways to Cut Medical Cost", C. Littwin; "Junior Membership, a Uniform Plan", B. T. Schwarz; "Nursing Activities in Small Counties", F. P. Wilbur; "Control of Limited and Unlicensed Practitioners", A. Liva.

Concrete recommendations were carried, as follows: (1) that Dr. McBride present his suggestions on "amendments to the compensation act" to the State Society Meeting; (2) that an amendment to the Constitution of the State Society, to permit a classification of Junior or Associate Membership, be presented by Dr. Schwarz.

CAMDEN COUNTY

R. L. Sharp, M.D., Reporter

Instead of the usual scientific meeting in June the Camden County Medical Society, with the West Jersey Homeopathic Society and Physicians Motor Club, enjoyed their Annual Outing at Tavistock Country Club, Haddonfield, on May 26.

The committee sent the following announcements:

No After-Dinner Speeches

This is an outing

Kindly leave all "case reports" at the office.

This was rather descriptive of the affair, golf, a good dinner, movies and humorous sketches, occupied the afternoon and evening.

The Secretary has compiled the following interesting statistics for the year:

Twelve (12) new members.

Two (2) resignations.

One of the resigned being elected to Honorary Membership.

Deceased, Chester A. Bardsley.

Average attendance at meetings, 61.25% of membership; which we feel speaks rather well for our Committee on Scientific Program.

ESSEX COUNTY

Frank W. Pinneo, M.D., Secretary

The Washington Bi-Centennial Observed in Essex County

The State General Committee having in charge the celebration of the Washington Bi-Centennial circularized the medical societies, as probably all others, and the Essex County Anatomic and Pathologic Society, in patriotic response, decided to plant 2 memorial trees closely associated with medical headquarters in Newark, the Academy of Medicine of Northern New Jersey, and, with the cooperation of the Shade-Tree Commission, of Newark, chose a site in Lincoln Park immediately in front of the Academy of Medicine building where the special committee of the Society appointed for the purpose planted 2 red oak trees of lusty growth on Thursday, May 5. Appropriate ceremonies marked the event with a company of physicians and other interested friends present. The notable and historic love of trees which characterized George Washington, and the nation-wide movement to plant trees this year in commemoration of his birth, were alluded to; that gem of poetry—"Trees" by Joyce Kilmer, was recited; and some interesting data on the enduring nature of such a memorial concluded the event. Permanent stone markers, with bronze tablets and an inscription, will mark the spot and be so recorded in the archives of the American Tree Association, at Washington, D. C. It is noteworthy that a Pathologic Society expresses the interest of Medicine, when we recall the progress in medical research made in diagnosis and bacteriology since that fatal illness of George Washington 133 years ago.

Associated Physicians of Montclair and Vicinity

Cyril S. Kirkby, M.D., Secretary

The Annual Dinner and Meeting of The Associated Physicians of Montclair and Vicinity was held at the Montclair Golf Club on Wednesday evening, May 25.

Dr. Warren Ripley was elected President for the season of 1932-33, and Dr. Charles T. McGinnis, Vice-President. Dr. Harry Halprin was reelected Treasurer, and Dr. Cyril S. Kirkby was reelected Secretary.

The Speaker for the evening was Dr. John F. Hagerty, who gave a summary of the work of the State Medical Society with special reference to the pioneer work the society is doing in an attempt to regulate specialism.

In the afternoon, the Annual Golf Tournament was held.

Homeopathic Hospital of Essex County Clinical Staff Meeting

Edward H. Willan, M.D., and Ferdinand C.

Dinge, M.D., Reporters

The regular monthly clinical staff meeting of the Homeopathic Hospital was held at the Baker House, Thursday evening, May 26, with Dr. Willan presiding and 26 members of the staff present.

The program consisted of the following case presentations: "Genital Tuberculosis in a Male"; "Toxic Adenoma of the Thyroid"; "Hodgkin's Disease"; and "Pneumonia Which Showed Meningeal Symptoms".

Case 1. This boy presented himself in May 1928, at the age of 14. His mother gave the history that early in life he was handled by a friend who had tuberculosis, and several years later, at the age of 6, the child had measles and, subsequently, pus and blood were frequently found in his urine. At a later period, x-ray pictures were made of the abdomen, and nephrolithiasis was diagnosed; later thought to be a calcified gland. The pus and blood finally cleared and the boy was well until January 1928, when he was struck in the scrotum and swelling immediately resulted. This was treated (elsewhere) with an ointment for 4 months, when a distinct abscess was formed, incised and drained. When we first saw the boy there was a sinus, draining a large abscess of the scrotum; epididymus was swollen, tender and firm; and, in the hospital, he was operated on. The left epididymus was necrotic with caseous areas apparently involving the testicle; the vas deferens, near the external ring, seemed free from involvement, but a rapid frozen section was made and tuberculosis discovered. A left epididymo-orchectomy was done. Palpation of the seminal vesicles, per rectum, showed the left tender and swollen, and at that time we thought there was involvement of this structure. The lungs were normal. Urinalysis showed numerous pus cells; the testicular tissue normal; epididymus and scrotal tissue extensively tuberculous, with abundance of giant cells and considerable necrosis.

The following September the boy was still maintaining an evening temperature of 99°. The process in the left seminal vesicle gradually became smaller and softer. In 1929, on January 1 and 15, smears made from catheterized urine showed occasional tubercle bacilli. In the meantime, the boy had gained 5½ lb.; every thing was done to improve his general health, such as quartz lamp exposures, light school work, summers in the open, and nourishing food. He continued to gain and seemed almost entirely well until, in January, he had made a total gain of 14 lb. Then he had influenza, with temperature reaching 102°. In about 10 days he felt better, had normal temperature, but had lost 3½ lb. On April 22 he appeared in the office with a swollen and tender right epididymus; 2 hard nodules present; temperature 101°. After 3 days observation he came into the hospital and a right epididymo-vaso-orchectomy was performed under spinal anesthesia. The tissue report on both testicle and epididymus was "tuberculosis". Within a few days after operation the temperature was again normal and the boy felt normal.

It is impossible to feel optimistic about the prognosis in this case. The lungs appear normal to physical examination and x-ray picture. There is no cough; no pus in the urine; no evidence of bone tuberculosis. There is, however, a vague indigestion and it would not be surprising if a peritoneal tuberculosis soon made itself evident.

Dr. Willan opened the discussion of genital tuberculosis by giving the following résumé. The prevailing conception of genital tuberculosis is that it is part of a systemic disease; not disease confined to one portion of the body, such as the epididymus and testicle. It is believed that the epididymus and testicle are to some extent excretory organs, as is the kidney. Pathologists have

found that cultures taken from these parts, in cases of general sepsis, often reveal the nature of the infection. We know that bacteria are excreted from the blood stream by the kidneys and it seems that they may also be excreted by the testicle and epididymus through the vas and seminal vesicles.

Most investigators believe that the tubercle bacillus in these parts, in the process of excretion, infects the tissue, and that which appears as a *primary focus* in the epididymus, and more rarely in the seminal vesicles, is really a metastasis from some distant focus. Traumatism may materially aid bacteria present to gain a foothold and produce active disease. So, in back of all genito-urinary tuberculosis there is, theoretically, a primary tuberculosis elsewhere in the body; maybe in the lungs, the bones, or the peritoneum. Removal of a tuberculous epididymus is, therefore, only a palliative measure. About 50% have involvement of the opposite side. The majority of these appear within 6 months, but there have been delays in appearance of the disease on the other side for as long as 8 years. Usually, when seen, the seminal vesicles are already involved and the diagnosis can be made by palpation; typical hard but tender nodules can be felt against the prostate. The testicle is often not involved at first. This multiplicity of infection, which is a hematogenous spread from some other primary tuberculosis, is reason enough for the failure to achieve cures from extirpation of segments of the disease.

The symptoms of tuberculosis of the epididymus are: swelling, tenderness, moderate fever, sensation of general malaise, and often digestive symptoms. This may appear for a few days to be like any epididymitis, for instance, like a gonorrheal infection, but the condition soon proves to be more chronic in nature and one can soon palpate a moderate-sized, distinct, hard, irregular nodule in the lower pole, slightly sensitive to touch. These nodules become more numerous; an acute hydrocele is apt to form, if the condition is untreated; the caseous abscesses tend to rupture, then coalesce, and a fistulous tract to the surface is established. The testicle is involved quite early in the process and the disease spreads up the vas. It is believed that the disease usually obliterates the lumen of the vas and spreads to the seminal vesicles and the prostate by the lymphatics.

Medical management of the acute stage is rest in bed; scrotal support by means of a bridge; heat; heliotherapy. In the chronic stage, treatment is that of tuberculosis; hygiene, nourishment, rest, heliotherapy, tuberculin and fresh air.

Surgical treatment calls for extirpation of the diseased area; usually impossible. Young, of Baltimore, does a radical epididymo-vaso-vesiculectomy, but most urologists do a more conservative operation, often just the epididymus and the vas are removed, leaving the cord and testicle. Among German surgeons the testicle is usually taken with the epididymus. Just as with removal of both ovaries in the female, the removal of both testicles in the male produces changes in the emotional status; not so apparent if the male has reached the adult age. However, to prevent these changes, our surgeons favor conservation of the testicle when possible.

Case 2. Dr. E. V. Brown presented a case of Hodgkin's disease. A woman, aged 35, had lost strength and weight for about 8 months. She had been treated by physicians for sinus trouble, and

for bronchitis. She had palpable glands in the left supraclavicular region, and an x-ray examination of the chest showed a large mediastinal mass. A biopsy upon the glands showed typical Hodgkin's disease. X-ray therapy to date has effected very little improvement.

Dr. Brown pointed out that many regard Hodgkin's disease as an infectious granuloma but that no specific microorganism has been found as its definite cause. He described the typical histologic picture and pointed out that this process was associated with a slow, painless, progressive enlargement of the lymph-nodes. He showed that it usually affects persons between the ages of 15 and 40. Symptoms are: painless, local lymph-node enlargements; recurring pruritus; diarrhea; and fever. Later, anemia, cachexia and pressure symptoms develop, followed by gradual exhaustion and final sepsis. He discussed differential diagnosis of leukemia, malignant lymphoma, tuberculosis, syphilis, non-specific lymph gland enlargement, chloroma, multiple myeloma, bone tumors, and splenomegaly. Treatment consists of arsenic, for the anemia, and x-rays for the purpose of temporarily reducing the size of the glands. Prognosis is bad.

Case 3. Was presented by Dr. F. C. Dinger. A woman 66 yr. old entered the clinic 4 weeks previously with symptoms of exhaustion, pulse rate 118, loss of weight, and pallor. Examination revealed an irregularly enlarged thyroid. Her basal metabolic rate was +83. She was put on Lugol's solution, 10 drops 3 times a day, and her condition improved. Two weeks later she entered the hospital and after rest in bed and further Lugol's solution her basal metabolic rate was reduced to +47, but despite continued treatment for 1 more week, the basal metabolic rate ran up to +60. A partial thyroidectomy was then performed and 4/5 of the gland was removed. Section showed a colloid adenoma with no areas of marked toxicity.

Dr. Dinger brought out the clinical classification dividing thyroids into the colloid thyroid of adolescence; the adenomatous thyroid, subdivided into toxic and non-toxic; and then Grave's disease and malignancy of the thyroid gland.

Dr. Fendrick presented a classification based upon pathologic changes and lantern slides were used in the demonstration.

Case 4, presented by Dr. C. R. Brown, was that of a child, 7 months old, who was admitted to the Emergency Ward, from another hospital, with a diagnosis of meningitis. Child was unconscious; eyes and head drawn to right; anterior fontanelle not distended; tongue dry; voice hoarse; opisthotonos marked; pupils normal in size but with no reaction to light; legs and arms, spastic but showing no paralysis; knee-jerks exaggerated; carpopedal spasm; convulsive twitching of arms and legs. Physical examination of the chest showed hyper-percussion note over entire left chest, and bronchial breathing over left scapula. Temperature running to 107°; and leukocytosis of 15,700. No organisms in spinal fluid.

X-ray report showed abnormal thickening of right hilus; markings irregular in outline and increased in number. There was no involvement of parenchyma. Despite x-ray findings and meningitic symptoms, diagnosis of lobar pneumonia was made. At the end of 24 hours, the meningitis symptoms had diminished, the child was placed in an oxygen tent, and the pneumonia progressed in the ordinary manner. It was found later that this child had suffered with meningitis

6 months before; at which time meningococci were present in the spinal fluid with a very high cell count; and that probably influenced the existing condition.

Case 5. Dr. Brown also presented a child 2 months old, showing all the typical signs of meningitis but really having pneumonia; in this instance, no previous history of meningitis.

Dr. Gray closed the meeting with a discussion of "Chronic Arthritis". He stated that in this climate it is exceedingly prevalent and that no chronic disease presents a more serious social or economic problem. Lantern slides were used in illustrating various types of arthritis, the results of recent bacteriologic studies, and the pathologic lesions found at autopsy. The association of focal infection, blood stream infection, and joint lesions, was pointed out. It was shown, however, that bacteriemia may exist without the localization of bacteria in the joints, and that numerous predisposing factors, which lower individual's resistance and increase the joint susceptibility, play an important part in development of this disease. An analogy was drawn between rheumatoid arthritis and tuberculosis, and the importance of a comprehensive plan of treatment in both diseases was emphasized. An identical program was advised for the correction of constitutional defects, for supportive treatment, rest and heliotherapy. In rheumatoid arthritis, however, he showed that prevention of joint involvement depends to a large extent upon early detection and removal of foci of infection. Establishment of infection in the joints was considered an indication for the use of specific vaccine. The convalescent patient requires the intelligent use of physical therapy, special instruction regarding careful daily motion of the joints, and the maintenance of a hopeful and sane philosophy.

HUDSON COUNTY

Bayonne Hospital Clinical Conference

Maurice Shapiro, M.D., Reporter

The regular meeting of the Clinical Conference of Bayonne Hospital was held Monday evening, May 6, with Dr. Donohoe, as chairman, at 9.30 p. m.

The deaths of the month were reported and discussed, and the Surgical Service for the month was reported.

Case 1. S. K., aged 20, white female, brought to the hospital by ambulance, complained of having been shot in the chest by her husband. She was in a state of collapse; skin cold and moist; pulse rapid and weak; quite restless and irritable. Examination showed a bullet wound on the left lower chest, anteriorly, near the sternal margin. No point of exit found. The left chest was entirely clear, on percussion and auscultation; right chest flat on percussion, and no breath sounds heard anywhere. Diagnosis was pneumothorax with hemorrhage into the lung. It was obvious that the patient was bleeding somewhere, so a clYSIS of 1000 c.c. of glucose and saline was given immediately and the restlessness was controlled by morphine. On following morning patient received another clYSIS, and felt rather comfortable except for engorgement of the breasts due to not nursing her infant. It was decided to treat the patient conservatively, as an attempt to look for the bullet would invite trouble, and she was put on Minot-Murphy diet and kept in bed. During her stay

here she has been running low grade fever, the temperature never going above 102°. She is now feeling fine and will be up shortly.

Case 2. W. K., aged 48, white male, entered with complaint of pain in the abdomen. On April 13, he awoke with pulling pains in the lower abdomen, not severe but requiring him to stay at home, and he summoned a physician, but his condition remained the same for 1 week, during which the pain would come and go. He then began vomiting all food as soon as eaten, and that has continued until the present time. He had lost considerable weight and felt very weak. He had some stomach trouble 27 yr. ago, with urinary symptoms like dysuria and frequency. From the Urologic Department, we received the following notation by Dr. Woodruff: "Rectal touch reveals a large, irregular, boggy mass that appears to be intestinal. It is well adherent to the bladder and prostate and does not seem to be in connection with either organ. I think this is an intraabdominal condition."

The patient was very weak and, most of the time, refused to eat. He frequently complained of a burning sensation in the abdomen, immediately followed by vomiting, at first, stomach contents but, later, fecal in character. The abdomen was in a state of chronic distension, being markedly enlarged, tympanitic to percussion, and the outline of the entire large colon could at times be easily seen beneath the abdominal wall. However, it was never tender, and he never complained much, because of his apparent mental dullness.

Patient was considered a poor operative risk for any surgical intervention, and attempts to relieve the distension by high colonics, milk of magnesia, enemas and so forth, failed; and, in 2 days, the patient became cold and clammy, pulse was imperceptible, abdomen very tense, and he suddenly expired.

Diagnosis. The postmortem diagnosis was "chronic intestinal obstruction due to a growth of malignant character".

From the Medical Service several interesting case histories were presented: particularly 1 of "angina pectoris with coronary occlusion"; 1 of "elephantiasis" with erysipelas of the right leg; and 1 of "subacute malignant endocarditis".

MERCER COUNTY

A. Dunbar Hutchinson, M.D., Secretary and Reporter

The Mercer County Medical Society met, on June 9, at the Hopewell Valley Golf Club, where, following an afternoon of Golf and Quoits, Dr. G. N. J. Sommer, in the absence of Dr. Wilbur, the President, called the members to order. Drs. E. G. Meriwether, Allen G. Ireland and Walter R. Peterson were declared elected as Associate Members. The application of Dr. Harold K. Doranz was read and referred to the Membership Committee.

The following motion was made, seconded and carried: That the Society petitions the Board of Trustees, respectfully requesting that the Board refrain from any action that might in any way curtail the present size or form of the Journal, or hamper its publication; and, refrain from interfering in any way with the activities of the Editor, the Executive Secretary, the Recording Secretary and the Field Secretary; and, that a copy of this motion be forwarded to the Board of Trustees and to the Committee on Finance and Budget.

MIDDLESEX COUNTY

Samuel Berkow, M.D., Reporter

The regular meeting of the Middlesex County Medical Society was held May 25 at the Hotel Pines, Metuchen, at 8.30 p.m., Dr. Robert L. McKiernan presiding.

Moving pictures, depicting the Treatment of Traumatic Injuries of the Extremities, were shown through the courtesy of Davis and Geck, Inc. The business session followed.

The Secretary read a letter from Dr. Spencer T. Snedecor, Secretary of the State Society's Judicial Council, requesting information concerning a member of whom the Council approved last year. On motion, this communication was referred to the Committee on Medical Ethics.

Dr. Fishkoff discussed the attitude of undertakers toward autopsies, and Dr. McKiernan cited a recent incident in which the recalcitrant attitude of an undertaker was extremely offensive. On motion of Dr. Edward F. Klein, the Welfare Committee was instructed to bring this matter to the attention of the County Undertaker's Association.

Dr. H. Sheridan Baketel, Professor Emeritus of Preventive Medicine and Hygiene, Long Island Medical College; and Editor, of the periodical called Medical Economics, read a paper on "State Medicine". This splendid address had been read previously before another County Society, and had been, in part, reported in the Journal, but it continued to be of interest to this audience. (The Journal's Editor considers it sufficiently *apropos* to merit publication in full in this issue of the Journal, p. 538.—Ed.) A lively discussion followed the reading of this paper.

Dr. Edward F. Klein, recently returned from Vienna, stated that physicians in that city are *over-worked* and *under-paid*, and that "state medicine" there is an expression of general socialistic tendencies.

Dr. Rothschild reported on conditions in Germany. He considered that "state medicine" *will not be avoided in this country*, because we do not learn from the experience of others.

Dr. Silk pointed out the advantages of state medicine in the field of preventive medicine.

Dr. Howley stated his opinion, that state medicine groups may be preferable to "free clinics".

Dr. Johnson brought up the fact that a Mr. McCleary has been soliciting members for a group picture of the members of the society. There was considerable discussion as to the financial responsibility of this man, and a committee was appointed to investigate the matter. This committee consists of Drs. Howley and Johnson.

A collation was served.

Medical Section Rutgers Club

John H. Rowland, M.D., Secretary

The annual outing of the Medical Section of the Rutgers Club was held on Wednesday, June 22, at Dock Watch Hollow, mountain lodge of Dr. F. C. Johnson. Those present were: Drs. Forney, Faulkingham, Hoffman, Haywood, Fagan, Sherman, Klein, McKiernan, Nafey, Toy, McGovern, Brody, Feher, Smith, Brown, Cronk, Johnson, Nieman, Karshmer, Merrill, Howley, Rowland and Runyon.

In the afternoon, about 16 members played golf at the Raritan Valley Country Club, Somerville, while others enjoyed swimming and canoeing at Sunset Lake, on the estate of Dr. Marshall Smith.

At 6 o'clock the members gathered at Dock

Watch Hollow, where they were [served with steamed clams; steaks, which they broiled themselves; bacon, rolls, green corn, asparagus, watermelon, salad, pies, coffee and punch; which were enjoyed in the open. Moving pictures were made of the members enjoying the outing, and they were entertained by William P. Kelgard, humorist speaker.

At sundown, the members adjourned spontaneously to their homes, after a very enjoyable outing.

MONMOUTH COUNTY

Harold A. Kazmann, M.D., Reporter

A meeting of the Monmouth County Medical Society was held at the Monmouth Memorial Hospital, Wednesday, May 25, with Dr. Stanley Nichols presiding.

The following report of the Executive Committee was submitted: The regular meeting of the Executive Committee of the Monmouth County Medical Society was held on Tuesday evening, May 17, at the home of Dr. Stanley Nichols, with the following men present: Drs. Nichols, Maher, Campbell, Fisher, Featherston and Watkins.

Dr. Nichols opened a discussion as to the probability of interesting the Woman's Auxiliary to the County Society in social service work, in an effort to determine the ability of so-called "ward patients" to pay for hospital treatment and attendance at clinics in local hospitals. It is felt that a great many patients are now using the charity facilities of the hospitals when, in fact, they are not properly "charity patients", and do not desire to be classed as such. This has become especially apparent with regard to the specialties. It is also feared that this community will be during the "depression" educated and encouraged to patronize charity clinics when the need does not actually exist. Many of these people could afford to pay for medical services at a reduced rate which should include some remuneration for the doctor who renders the service. It is believed that this problem may only be solved by a thorough and intelligent social service investigation, which is not available because of the lack of social service workers and the large attendance at such clinics.

We wish to call attention to the fact that in order to have advertising material removed from the classified section of the telephone directory, it is necessary to notify the company in writing; and even then it will take 4 months before it is removed.

Considering the Executive Committee's report, relative to the ability of patients to pay for treatment, the matter was referred back for further study.

A question having arisen regarding the budget of the State Society as it concerned the work of the Editor and Executive Secretary, upon motion of Dr. Campbell, the society voted to instruct its representative on the Board of Trustees not to approve of any action that would interfere with the financing or the works under guidance and control of Dr. Reik, unless good and sufficient reasons were shown to make such procedure necessary.

The name of Dr. K. G. Brown was added to our Maternal Welfare Committee.

The program was in charge of Dr. James A. Fisher and Dr. W. K. Campbell, who read papers on "Eye, Ear, Nose and Throat Problems of Interest to the General Practitioner". These papers were warmly and favorably received.

We are happy to report that Dr. William G. Herrman, who has been on the sick list for almost a month, has returned home from the hospital and promises to be at the State Society meeting in Atlantic City on June 15.

Dr. O. R. Holters, of Asbury Park, has just returned from a short trip to Germany and Russia.

Dr. H. B. Slocum, Chief of Staff of the Monmouth Memorial Hospital, has just returned from a week of vacation at Princeton.

Dr. Samuel W. Hausman is leaving on June 15 as a delegate from the Red Bank Rotary Club to the Rotary International Convention at Seattle, Washington, after which he is taking a short tour through the Canadian Rockies and Alaska.

Dr. and Mrs. S. Neiderhoffer, of Long Branch, are the proud parents of a daughter, Joan, born on May 22, 1932.

Dr. Gregory Sacco, of Deal, was recently operated on for appendicitis.

MORRIS COUNTY

Marcus A. Curry, M.D., Reporter

A regular quarterly meeting of the Morris County Medical Society was held the evening of Thursday, June 23, in the recreational hall at Greystone Park State Hospital, with President Krauss in the Chair and about 40 members and guests present.

Secretary Ward read the minutes of last quarterly meeting, March 17, and the 2 intervening special meetings of April 21 and May 19, which were unanimously approved, together with the proceedings of the Executive Committee.

Among the problems considered by the Executive Committee was the question presented by the County Welfare Board, regarding physicians making examinations for commitment of indigent persons, without fee. The feeling of the Executive Committee was "that in organized welfare work, the physician is entitled to a fee and is justified in charging for that type of service", and that opinion was unanimously concurred in by the Society.

Dr. C. E. F. Laatsch, one of the Resident Physicians of the Greystone Park State Hospital Staff, was nominated for membership.

Drs. Morris Harris, of Morristown, and Alton P. King on transfer from Monmouth County, were unanimously elected.

Dr. Costello rendered a highly interesting report on the State Medical Society's Annual Meeting: Stating that the 1932 meeting stands out, in many respects, in contrast with former meetings; that the attendance of 1010 exceeds that of any other session; that the Scientific Program equaled and, in some sections surpassed, those of other years; that the attendance from Morris County was 12 members; that our Delegates opposed the suggested reduction of salary of the Executive Secretary, and abolition of the office of Field Secretary, because of the good standing of the State Society at present and Dr. Reik's fine work in bringing the Society and its Journal to such well-recognized improved standing throughout the country; singling out pending legislation that calls for constant vigilance of the Society; recommending reading of the "proceedings" and scientific papers, as they appear in the Journal; urging the keeping in touch with the economic phases of medical problems, the inauguration of policies for the benefit of the members, and a larger attendance at State Society meetings.

The following official roster for next year, to

be voted on at the annual meeting in September, was presented: President, Frank H. Pinckney; Vice-President, Inglis F. Frost; Treasurer, George J. Young; Secretary, Albert J. Ward; Reporter, Marcus A. Curry; Historian, H. W. Kice; Credentials, Ward, Traux and Comeau; Executive Committee, McElroy and Larson; Delegates to State Society, Krauss and McMahon; Alternate Delegates, Plume and Thomas.

A representative of the Independence Indemnity Company, of Philadelphia, appeared and discussed and elucidated the Health and Accident protection under the Group Agreement available only to members of the society, at the low premium at which it is offered, and his discussion and answers to points raised afforded a clearer understanding of the economic benefits of this unique form of protection.

The scientific chapter consisted of case reports in Eye, Ear, Nose and Throat Diseases, presented by members of the society, Drs. Raymond H. Mathews, Alvan Spencer and W. Blake Gibb. The symposium was received with unbroken interest, and 1 rare case of interocular sarcoma, presented by Dr. Gibb, was illustrated by lantern slides. The members manifested their appreciation of the reports by discussion and applause.

After adjournment refreshments were enjoyed.

SOMERSET COUNTY

J. L. Young, M.D., Reporter

The Somerset County Medical Society held its regular meeting at the Somerset Hospital, in Somerville, Thursday, June 9, with Dr. Meigh presiding, and the following members present: Drs. Barbour, Craig, Flint, Ely, Lovejoy, Sferra, Meigh, Halstead, Hegemen, Stillwell, Renner, Smalley, Al-lis, and McConaughy.

A letter was read from Dr. English, stating that the "clinic" for study of tuberculosis would be given in the autumn.

The President appointed the following committees: Nominating, Drs. Renner, Stillwell, and Hegemen; Dinner, Drs. Barbour, Sferra, and Young.

Dr. Linn Emerson, of Orange, read an interesting paper entitled "Random Thoughts on Medical Economics", and a good discussion followed.

Obituaries

APPLEGATE, Asher T., one of the oldest practicing physicians in the state, died May 31, 1932, at his home in Englishtown. He was almost 86 years old and had practiced medicine in that vicinity more than 61 years and had been Mayor continuously for the past 32 years.

From the community he received a loving cup October 5, 1930, at a public function in his honor.

Dr. Applegate was graduated from the University of Pennsylvania Medical School in 1869 and 2 years later settled in Englishtown. It is said that he never refused to answer a call at any time of night, at any distance and regardless of the weather.

GOLDBERG, Eugene Holden, aged 63, died June 13, at his home, 71 Hillcrest Road, Arlington.

Born in Newark, October 4, 1868, he came to West Hudson with his family as a child. He received his early education in the public schools of Harrison and Kearny. Later he was graduated from Newark Military Academy and obtained his

M.D. degree at the College of Physicians and Surgeons, New York.

His professional career included Intern at Bellevue Hospital, New York; Resident Physician at City Hospital, Newark; Chief Surgeon of the Soldiers' Home, Kearny, and an extensive private practice. He held the medical post at the Soldiers' Home from 1900 to 1922, when he retired because of ill health.

He entered political life in 1896 when he was appointed Kearny Town Treasurer for 2 successive terms. In 1898 he was elected Councilman. He was returned to office at 4 consecutive elections, serving as Councilman-at-Large until 1905. A law was passed to provide for the office of Mayor, and he served as Mayor until 1907.

SMITH, Thomas Jefferson, at the age of 91 years, died June 14, 1932, at his home in Bridgeton, where he had practiced medicine for 63 years.

The deceased was a native of Salem County, having been born at Mannington, and prepared for college in Salem School and Academy. He was graduated from Williams College, Williamstown, Massachusetts, in 1862, and had been recently pronounced the oldest living graduate of that institution. He was graduated from the Medical Department of the University of Pennsylvania in 1866, practiced for a short time in Camden and moved to Bridgeton in 1869.

To his degree of Bachelor of Arts from Williams 70 years ago, and his degree of M.D., from the University of Pennsylvania, was added the degree of Doctor of Science, awarded by Bucknell University. He had served the Cumberland County Medical Society as President, the New Jersey State Medical Society as Vice-President and President, served on important committees and was a member of numerous societies connected with the medical profession, including the Philadelphia Medical Club, Medical Brotherhood and American Academy of Medicine, an organization of college graduates. For 8 years, Dr. Smith edited the annual volume of the State Medical Society proceedings.

Perhaps one of the greatest monuments to his life's work is his part in establishing the New Jersey State Village for Epileptics, at Skillman. As President of the State Society, in 1897, he urged this in his Annual Address, in face of the fact that a Bill looking toward this end had just failed of passage in the Legislature. A committee was named to draft and urge a bill. This was done, Dr. Smith being an active member of the committee, and after a successful outcome he served for 10 years as a member of the Board of Managers and Treasurer. In 1893 he was a Delegate to the Pan-American Medical Congress in Washington.

For 21 years Dr. Smith served as Medical Director of the Cumberland County Hospital for the Insane, was for years President of the Board of Trustees of the former South Jersey Institute, and was a Deacon for many years in the First Baptist Church. He was a member of the National Geographic Society, Evening Star Lodge, No. 97, F. and A. M.; Brearley Chapter, R. A. M.; and Olivet Commandery, Knights Templar. He had served for many years as a member of the Board of Directors of the Training School at Vineland and was a member of the New Jersey Society of the Sons of the Revolution. His great grandfather, William Smith, was a Captain in the Revolutionary War, served at Quinton Bridge, was a friend of Washington and named a son for the first Presi-

dent, Washington Smith. Among Dr. Smith's most prized possessions was the sword his great-grandfather carried in the War of the Revolution.

TRAUB, Paul, of 27 Richley Place, Trenton, died at his Summer home, in Beach Haven, June 6, 1932.

Dr. Traub's death, due to a heart attack, came as a shock to his many intimate friends. He was 59 years old, and although he had been in ill health for several years, in recent weeks he was believed to be vastly improved.

A few weeks ago, Dr. and Mrs. Traub moved to their Summer home, where Dr. Traub had a large practice among the Summer residents. Born in Germany in 1873, Dr. Traub came to America as a young man and entered the University of Pennsylvania Medical School. He began his practice of medicine in Bordentown, and in 1906 became head of the Medical Department of the John A. Roebling's Sons Company. He held this position until 1922, when he resigned to begin private practice in Trenton and Beach Haven.

Dr. Traub was a member of Mt. Moriah Lodge No. 28; Scottish Rite and Crescent Temple, A. A. O. N. M. S. In addition to his wife, who was Miss Alice Colkitt, Dr. Traub is survived by a nephew, Kurt Traub, of Trenton and Princeton; a brother, Rudolf, in Brooklyn, and a sister in Germany.

Resolutions Adopted by the Summit Medical Society on the Death of Dr. Wellington Campbell

A meeting of the Summit Medical Society called for the purpose on June 18, 1932, records its deep sense of loss in the death of its fellow member, Dr. Wellington Campbell, of Short Hills, New Jersey, who had practiced his profession for 55 years and continued in active membership of the Society for the entire 27 years of its existence.

Coming into the field of medicine at the beginning of its period of rapid scientific progress, he kept pace with the advance and saw pestilence fade and disease become more controllable, and precision take the place of diversity in practice. Over a period of several years he took active part in an official capacity in the practical application of the new science of public health to community welfare.

As a physician, his straight-forwardness, candor, and intrinsic honesty of mind and heart, preserved to him a following in spite of his years, and made him an honored figure among his professional peers.

Dr. Campbell thus finishes an unusually long, active and fruitful professional life, and bequeaths a full memory of things well done, and of service freely given, in the spirit of the best traditions of his profession.

Be it resolved, therefore, that we extend our sympathy to the members of his family, and that this minute be spread upon the permanent records of the society, a copy sent to his relatives, and copies furnished the Journal of the State Medical Society and the local press of Millburn and Summit, for publication.

Thomas P. Prout,
William H. Lawrence,
E. H. MacPherson,
Committee.

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A SYMPOSIUM ON CANCER Constituting the Scientific Program of the Gloucester County Medical Society at its Regular Monthly Meeting, held April 21

at the Oakwood Country Club, and consisting of the following 5 papers, by Drs. Hastings, Teahan, Wammock, Downs and Whitcomb, all members of the Jeanes Hospital Staff, Fox Chase, Philadelphia.

THE GENERAL EFFECTS OF MALIGNANCY

WILLARD S. HASTINGS, M.D.,
Philadelphia, Pa.

Any thoughtful consideration of the cancer question must sooner or later face the problem of accounting for the various general symptoms usually associated with the disease. Why should the ungoverned hyperplasia of a group of cells having no apparent association or connection with blood formation result in anemia? Why should the patient lose weight even though his tumor does not directly interfere with the alimentary function? Are these and other general symptoms invariably present, even in advanced cancer? Are they due to tumor growth *per se*, or to fortuitous and varying conditions resulting therefrom? Finally, why does the cancer patient die?

For these and similar questions, science has as yet no simple and complete answer. The factors are too numerous for the frequent oc-

currence of parallel cases or for easy control of investigation. The literature is too full of attempts to generalize from large series of cases without regard for incidental and secondary conditions, and of efforts to wipe out, in a general average, these elements in the problem even though they be present in a considerable proportion of the cases. However, much valuable information is accumulating, and an attempt at a brief analysis of some of the general physiologic changes found in malignancy may prove of interest.

For this purpose, such findings may be divided into groups. (1) General changes usually thought of as due to the presence of malignancy *per se*, through some toxic action, including changes observed in the blood and in the state of nutrition. (2) Changes due to local interference with function by tumor growth, either primary or metastatic. (3) Changes due to increased function. (4) Changes due to the products of degeneration or to infection. (5) Changes due to treatment.

Of the general symptoms, one of the most familiar is, of course, anemia. Leaving out of consideration that due to actual hemorrhage, or to replacement of the bone marrow by widespread metastasis, there is, unquestionably, in the great majority of cases a marked anemia, usually with distinct lowering of the color index. Various authors have ascribed this to toxic injury to the blood-forming organs, to the gradual loss of blood proteins from ulcerated surfaces and hence a lessened total blood volume, or to a poor state of general nutrition arising partly from psychic causes. It is extremely variable, both in oc-

currence and degree, and probably more than one factor is involved. The total blood volume is probably reduced in most advanced cases but, even then, the hemoglobin per unit of volume is lessened and an interference with hemoglobin formation must be assumed. An attempt to select a small series of cases of carcinoma not involving the alimentary function, and following the relation of the anemia to the progress of the disease and its complications, has not been fully satisfactory, owing to the varying, and often very late, time of the beginning of the observations, and the infrequency of cases not already ulcerated (Charts I and II). There is shown, however, a fall in hemoglobin as the disease progresses and a rise as healing occurs, even in small lesions.

Regarding changes in the mineral constituents of the blood, much work has been done in recent years, but with a great deal of confusion in the interpretation of findings, since most of the workers have been searching for *the cause* of cancer but could not exclude the complex character of its effects. Many have reported an increase of potassium in cancer tissue and in the blood of the cancerous patient. However, Remand and Contegril, who have written several papers from an interested but apparently unbiased point of view, found in a recent study that it was above normal in only 39%, and 1/3 of these, having the highest potassium content, were all complicated or advanced conditions with possibly existing renal damage. Likewise, there is general agreement that the blood calcium is decreased, but this is almost entirely in the fraction bound to the protein, according to results reported by Greenburg, and may be a result of loss of protein. Others report a lessened magnesium content in the body.

There have been several reports showing a reduced blood hydrogen ion concentration of small degree. It is too inconstant and too small relative to the experimental error to be of much value diagnostically. The average normal pH is about 7.38, with a range extending from 7.28 to 7.46, and dependent apparently only in part upon the difficulty of obtaining and handling blood samples without

altering their carbon dioxide content. Several workers have reported the blood pH of most cancer patients to be above 7.40, and averaging about 7.44, but with exceptions as low as 7.30. Reding and Slosse report this alkalosis also in the pre-cancerous and in the relatives of patients with cancer, but some have objected to their method of measurement. Experimental cytologists have reported cell growth stimulated by a slight alkalosis; while, on the other hand, several workers have found an acidosis in tumor tissues. The blood alkalosis has on this latter basis been interpreted as compensatory. Some have even reported an increased acidity in early stages. The question is far from being settled.

The commonest nutritional or metabolic change is emaciation. It is remarkably absent in certain cases outwardly similar to others showing it in marked degree; and often, probably, the complex factors which may affect the appetite are responsible. Some have postulated a proteolytic ferment, causing wasting of the muscles and other normal structures, but evidence supporting this is poor. A small series of cases without involvement of the alimentary function, but selected otherwise at random, shows the progressive loss of weight in most instances, but does not adequately represent the earlier stages (Charts III and IV).

Changes in nitrogen metabolism have often been reported, but their analysis almost always shows them to be secondary to kidney injury, or in some cases simple effects of tissue degeneration. Malignant tissues seem easier to maintain in nitrogen balance than normal tissues.

The changes considered thus far have been due to general effects on the organism by the mere presence of cancer. They contribute greatly to the illness of the patient, but excepting anemia caused by hemorrhage or emaciation due to alimentary dysfunction, they rarely, themselves, cause death. For the more lethal effects of the disease, one must turn to those causing local interference with function. Here the relationship is usually obvious. The majority of cancers of the uterus, and of the prostate, ultimately obstruct the urine flow

and cause hydronephrosis, sometimes pyonephritis, and death from uremia. Tumors of the lower alimentary tract cause obstruction, often with general effects, while those of the lip, mouth and esophagus interfere with the taking of food. In both cases the result is starvation if death from infection does not intervene. New growths of the larynx, bronchus or lung interfere with respiration, and those of the brain and cord, often by mere pressure, cause paralysis, blindness, or even respiratory failure. Metastases to lungs or liver may completely interrupt the function of these essential organs, while fractures due to bone metastases may incapacitate the patient.

General conditions characterized by symptoms of increased function are almost against the definition of a neoplasm, but do occur in tumors of the pituitary, thyroid, the islands of Langerhans, and the adrenals.

The fourth item of our classification results from the tendency of tumor tissue to grow beyond its blood supply, and thus degenerate. The products of this degeneration may contribute to the toxic damage by the tumor, but far more important is the resultant opening of portals to bacterial infection. Most patients having carcinoma above the shoulder level die from bronchopneumonia.

Changes due to treatment can nearly all be included under the effects of sloughing, either from physical or chemical agents, of infections, or the effects of radiation on mineral metabolism.

To draw conclusions, it would seem that most of the general effects of malignancy dangerous to life, aside from infection, are due to local interference with function, either by the primary tumor or its metastases, and must be fought on that basis.

CANCER OF THE SKIN

ELWOOD E. DOWNS, M.D.,
Woodbury, N. J.

This paper is a brief account of 111 cases of skin cancer which have come under our observation at the Jeanes Hospital in Philadelphia. Since our institution has been in existence but 4 years, it is impossible to draw any conclusions as to the percentage of absolute cures. Then, too, a large number of our patients were admitted with far-advanced lesions, many of them having been treated else-

where for a long time prior to their being referred to our clinic.

The tumors found in this group may be classified as follows: Epithelial tumors of the skin. (1) Basal cell carcinoma (including intermediate or mixed types). (2) Acanthoma. (a) Squamous cell carcinoma; (b) prickle cell carcinoma; (c) anaplastic and undifferentiated carcinoma. (3) Adenocarcinoma.

Mesoblastic tumors. (1) Melanoma (including melanosarcoma). Our cases of Paget's disease of the nipple and tumors involving the lip are not included in this report.

The following table is a classification of the various tumors with regard to frequency and location.

Location	Basal cell	Squam. cell	Prickle cell	Undiff. epid.	Adeno- carcinoma	Melan.	Total
Scalp	2					1	3
Forehead	6	2		1			9
Nose	14		2	2	1		19
Ear	7	1	1	5			14
Eyelids	2			1			3
Face	18	1	2	9		2	32
Temple	2	1		4			7
Trunk	4	1	1	2		2	10
Upper extremity			1	1			2
Lower extremity	1		1	1			3
Penis			1	1		1	3
Vulva	1	3		2			6
Total	57	9	9	29	1	6	111

From this table it may be seen that 57 cases (52%) were basal cell carcinoma; and that 87 of the lesions (78%) occurred about the face and head.

Of these patients, 25 (22.5%) have died. The average time interval in the fatal cases, between first appearance of the lesion and admission to our hospital, was $6\frac{1}{2}$ years.

The following table shows the histologic classification and location of the tumor in the fatal cases.

Basal cell, 6: Face 2—forehead 1—eyelid 1—scalp 2.
Acanthoma, 17: Face 5—temple 2—nose 2—ear 1—
trunk 1—knee 2—vulva 4.
Melanoma 2: Scalp 1—back 1.

Although more than half of this series had basal cell cancer, only 6 of the 25 deaths resulted from this neoplasm. This is accounted for by the habit of basal cell tumors remaining localized. They rarely, in their usual types, produce metastases. In the epidermoid group, there were 17 deaths. These tumors are radio-resistant and metastasize earlier, particularly to the adjacent lymph nodes. It should be noted that of the 6 patients with epidermoid cancer of the vulva, 4 died. A lesion beginning about the labia or clitoris is a difficult problem; not amenable to surgery and most radio-resistant.

The average age of patients in this series, when first coming under our care, was 66 years and 8 months; the oldest, 91; the youngest, a boy with xeroderma pigmentosum and multiple secondary epidermoid lesions, 9 years old.

Of the 25 who died, 2 had positive Wassermanns. Syphilis always is a barrier in the cure of cancer. Not only are these lesions more difficult to control but there is a tendency among physicians to attribute the ulcer to a luetic origin, persisting in the antisyphilitic treatment, while the cancer, untreated as such, progresses rapidly. An early biopsy, followed by radical treatment of the lesion and subsequent antiluetic measures, is a more rational procedure.

Diabetes is a relatively frequent complication which always offers an obstacle in therapeutics.

Skin cancer, when it occurs on the covered

surface of the skin, is more radio-resistant, and is, therefore, more difficult to cure.

That cancer never develops in healthy tissue is now an accepted fact. The most important therapeutic measure is to recognize the pre-cancerous lesions and eradicate it before actual malignant change occurs. The senile and seborrheic keratoses, warts, fissures, chronic ulcers and nevi, particularly moles, should be adequately treated.

When there is any suspicion that malignancy exists, a microscopic study will aid in determination of the most rational method of procedure.

Basal cell tumors are radio-sensitive and respond satisfactorily to irradiation, whether it be the Roentgen ray in massive doses or the gamma rays of radium. There are a small number of these conditions which, because of their location, may be treated by irradiation alone.

The ideal method of treating all dermal neoplasms is to excise completely the tumor tissue and include with it a wide margin of the normal skin. This is usually best accomplished by the high frequency cutting current. The tumor mass is thereby entirely removed, the lymphatic channels about it are coagulated, and a microscopic study can be made of the tissue. Following this examination, the advisability of subsequent irradiation to the surrounding area and the regional lymph nodes can be determined.

CANCER OF THE BREAST

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The ultimate result of treatment of breast carcinoma depends on several important factors the majority of which are to some extent controllable. Of course, the one which is most obvious is the necessity of the patient's consulting a physician promptly on noting any of the warning signs. As a result of the educational campaign which has been waged by the profession and some lay organizations, the vast majority of women know

that upon discovering anything abnormal about their breasts they should consult a physician. Their promptness in doing so varies considerably but it is evident that we all are seeing patients with tumors in their breasts earlier than formerly. Periodic health examinations afford us an opportunity to discover tumors before they have been accidentally found by the patients. In such an examination we must be especially alert not to overlook the early malignant lesions. Once the patient with breast carcinoma presents herself for examination, we must assume the responsibility for a prompt, accurate diagnosis, and for prescribing early and adequate treatment.

The uncontrollable factor is the relative malignancy of the individual tumor. Since it has been established that the radiosensitivity of a tumor generally varies inversely with its relative malignancy, this factor has assumed slightly less importance. Perhaps, after a greater experience with radiation therapy, tumors of relatively high malignancy will not be so difficult to treat successfully as they are at present. Because they grow rapidly and metastasize quickly, it is especially important to get them under treatment very soon after they first appear.

INITIAL SIGN OR SYMPTOM IN A GROUP OF
WOMEN WITH PRIMARY OPERABLE
BREAST CARCINOMA

Appearance	No.	Percentage
A single painless lump	37	66
Two or more lumps	3	5.3
Pain in breast	4	7.1
Retracted or inverted nipple	4	7.1
Watery discharge from nipple...	2	3.5-14
Bleeding nipple	1	1.7
Open sore or ulcer on nipple	1	1.7
"Hard areas" in breast	2	3.5
Dimpling of skin of breast	1	1.7
Enlargement of breast	1	1.7

The above table indicates the initial sign or symptom in a group of women with primary, operable, breast carcinoma together with the frequency with which the sign or symptom was noted. In each instance it was this sign which first warned them of something wrong. The majority first felt a single painless lump. Lumps may be situated in any portion of the breast or even in the lowest part of the axilla. Those which are malignant will feel fairly firm and may have a

slightly irregular surface. Not every lump in a woman's breast is due to cancer. There is, however, a safe rule to follow, which is: that every lump must be considered malignant until it is proved benign. If the lump is cystic and contains clear fluid it is benign. Transillumination by means of the Cameron light, as advocated by Cutler, is helpful in making a differential diagnosis. A tumor which does not transilluminate clearly is much more apt to be malignant. If, in addition to a doubtful tumor in the breast, there are palpable glands in the corresponding axilla, the tumor is almost invariably malignant. Attachment of the tumor to the skin, whether or not there is definite dimpling of the skin, is indicative of malignancy. A tumor adherent to the underlying muscle is, likewise, malignant; while 2 or more lumps in the same breast are more likely to be due to chronic, cystic mastitis, than to cancer.

A discharge from the nipple, in the absence of lactation, demands careful investigation. When there is a discharge from the nipple, and palpation of the breast discloses a tumor either beneath the nipple or in some part of the breast, malignancy must be strongly suspected. Occasionally, a benign tumor beneath the nipple will cause a bloody discharge. Ulceration or erosion of the nipple, as of the skin elsewhere, must also be regarded with suspicion. In small nipple lesions, without an underlying, palpable tumor, it is permissible to try careful cleansing and protection; but if healing does not result in a week, further investigation becomes essential. A retracted or inverted nipple should cause one to look for an underlying tumor, and if one be found, the condition is almost always malignant. In instances of "hard areas" or unilateral enlargement, if a tumor in the breast is not found, the breast is not the seat of malignant disease.

Pain in the breast, without other signs, is of no significance in early cancer diagnosis, although it is almost always present in advanced cancer. Occasionally, because of pain, a woman will examine her breast and discover that a lump is present. From the standpoint of cancer diagnosis, it is the lump that is important, for pain without other signs is

generally due to some functional disturbance of the breast.

It is believed that the above mentioned signs and symptoms are the ones which nearly every woman will first notice if breast cancer is developing. Mention has not been made of the "pig skin" appearance of the epidermis which indicates infiltration from the primary tumor upward involving a considerable area of skin. Everyone is familiar with this picture. Marked ulceration of the skin of the breast is also a later sign. Palpation of such an ulcerated area will reveal a tumor in the underlying breast tissue that should cause no difficulty in diagnosis.

One should adopt a definite procedure for the examination of patients suspected of having a breast lesion. The patient should be told not to indicate to the examiner which breast she believes is involved, as advised by Bloodgood. She should be stripped to the waist and lie on her back on the examining table with her head and shoulders slightly elevated and her hands clasped behind her head. First, there should be an inspection of each breast to detect asymmetry, and, also, to note by comparison if any part of one breast is more prominent than the corresponding part of the other. Are the nipples perfectly healthy? Is there an erosion or ulceration on either nipple or on the skin of the breast? Is there dimpling of the skin? Are any skin nodules present? Fulness of either axilla should be noted. Does there appear to be fulness of either side of the neck? After a careful inspection one is ready to palpate each breast. Can the breasts be freely moved over the chest wall? Does the breast tissue feel lumpy? Can a distinct, definite lump be found? If so, is it attached to the nipple, skin, or muscle? What is its consistency? Is its surface smooth or irregular, and, does it feel cystic? Are there tumors in the other breast? By gentle squeezing, can anything be expressed from either nipple? If no evidence of disease is found, the patient should be asked to indicate where she thinks she felt something abnormal; and that area should then be re-examined. Following this, each axilla should be palpated. Examination of the axilla is more readily made when one of the examin-

er's hands moves the patient's arm while his other hand palpates the axilla. If any enlarged glands are felt, a note should be made about their position, size, and consistency. The axillas having been examined, the neck should be felt—for any possible metastasis. Whenever a doubtful tumor is found, transillumination should be attempted. Lastly, if a tumor is discovered, it is advisable to palpate the upper abdomen for evidence of metastasis to the liver.

Not infrequently, it is impossible, by ordinary methods, to decide whether or not a given tumor is malignant; in which case a biopsy and an immediate frozen section examination is indicated. The tumor (not just a part of it), together with a margin of healthy tissue, should be removed; this can be done easily under local anesthesia and within a few minutes the pathologist should be able to report his microscopic findings. If the tissue removed is malignant the complete removal operation should be done immediately. If it is benign, the wound is closed and the patient allowed to go home. In any doubtful lesion one must always aim to err on the safe side. A biopsy, in itself, causes the patient little discomfort. As the frequency of lesions coming to us early increases, biopsy and immediate frozen section will have to be resorted to more often.

The successful treatment of cancer depends upon complete eradication of the disease. Except where a biopsy is necessary for diagnosis, we believe that radical treatment should not be undertaken until the patient has been thoroughly studied. In addition to the blood count, Wassermann test, and other laboratory studies routinely made on all patients awaiting surgical operations, thorough x-ray studies should be made. Owing to the possibility of metastasis, pre-operative x-ray examination of the chest is imperative, and, in addition, an x-ray study of the shoulder-girdles, skull, spine, and bony pelvis including the upper end of each femur, is desirable. If metastasis is present in any of these areas, radical operation is contraindicated. *Operation should never be done if there is metastasis to the glands in the neck.*

The acceptable radical operation of today consists in removal of the breast with a gen-

erous margin of surrounding skin and subcutaneous tissue. Both pectoral muscles should be sacrificed, saving only the clavicular portion of the pectoralis major. All the lymph nodes and fat should be carefully removed from the axilla. The upper portion of the rectus sheath should be removed. This is a tedious, time-consuming operation and, unless one is willing to spend sufficient time to do it carefully, radiation treatment alone would seem to offer the patient a better chance of getting rid of her cancer. Even in the most experienced hands, results from operation alone still leave much to be desired.

Because of this, some have treated carcinoma of the breast by x-rays alone; others by radium alone; and still others by a combination of radical surgery and radiation. While conflicting reports have been received, we have come to feel that we should not treat a carcinoma by any one method alone, but rather, that a combination of methods should be used. It is our practice with all breast cancer patients, on whom biopsy and frozen section is not necessary to establish a diagnosis, to give them first a course of pre-operative x-ray radiation; to be followed by the radical operation. After the incision has healed we then give them another course of radiation. The patient is then carefully followed. If the microscopic examination of the breast cancer indicates that it is of high malignancy, we frequently give them a third course of radiation after an interval of 3-6 months. Where biopsy and frozen section have been necessary, the patient is given at least 2 post-operative courses of x-ray therapy.

Patients with breast lesions are now consulting physicians earlier than in former days. It is important that we make early and accurate diagnosis. As soon as a diagnosis has been made, prompt and adequate treatment should be prescribed. The earlier the lesion is discovered the more difficult does the diagnosis become. In any case of doubt, a biopsy and immediate frozen section should be made.

THE MANAGEMENT OF CANCER OF THE CERVIX WITH EMPHASIS UPON THE DIAGNOSIS AND TREATMENT

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The purpose of this paper is to correlate some of the factors confronting one in the diagnosis and treatment of cancer of the uterine cervix.

It is generally accepted that 1 out of every 7 women die of cancer, 30% of which is confined to the female generative organs and of this number 2/3 involves the uterine cervix. Cancer of the cervix usually occurs at middle age and does not belong predominantly to old age, neither is it a respecter of age limit. In a series of cases at the Jeanes Hospital, 61% were between the ages of 30 and 60; 4.5% between 20 and 30; and 34% above 60. The youngest patient was 26 and the oldest 84 years of age. These figures are, in general, in agreement with those in other clinics, namely: Johns Hopkins Hospital, 66% between the ages of 36 and 55; and, Peterson, of the University of Michigan, says 62% were between 35 and 55.

Cancer is more likely to occur in multiparous than nulliparous women. It is considered, therefore, primarily a disease of women who have borne children. It does, however, sometimes occur to those who have given no history of childbirth or miscarriage. In our series of cases, 10.4% occurred in those who gave no history of childbirth or miscarriage; Frankl reports 3%, and Johns Hopkins Hospital 5.4%.

The exact etiology of malignancy of the cervix is not known, though various theories have been advanced; such as lacerations following childbirth and various exudates. No definite proof has been offered to show that cervical carcinoma begins primarily in an old laceration. A very illuminating interpretation has been advanced by Bailey, of England, from a study of 850 cervical tumors. He has studied the histologic picture, as presented in

each case, noted the changes that occur from an inflammatory process to that of a malignancy, and feels that there is a constant factor—which is some local irritant having a direct effect upon the epithelium—causing certain changes in the epithelial cells. At first there may be simple erosion and chronic cervicitis; this condition existing for a period of time. The local irritant is the constant factor, and this has a direct effect upon the epithelial cells. He says:

"A study of my cases has shown that the one phenomenon common to all is the associated presence of inflammatory exudate, and epithelial reaction, no matter what type of epithelium, depends entirely upon intimate contact between cells of the exudate and the epithelium concerned. One has also learned that the type of epithelial reaction produced depends directly upon the nature and function of the epithelium and also the density and accessibility of the inflammatory exudate with which it is in contact. We, therefore, conclude that cervicitis and erosion of the cervix are definitely related to the cervical cancer. This relationship is effected through the agency of a factor common to both an associated inflamed exudate in contact with epithelium. This is the intermediate causal factor and is constant. The basic cause of cervical cancer is to be found in this constant factor which is associated with all cell reaction in common, including that of cancer inception. There is no great initial cause of cervical cancer."

While the above is hypothetical, it is based upon a large series of cases and should be considered more than a conjecture. It leaves a fertile field for thought.

In view of the foregoing interpretation it should be the duty of every physician to become cognizant of this constant factor and he should endeavor to see that the offending condition is attended to and not neglected. Hence, we may carry on the fight against cancer while research work continues.

The signs and symptoms of cancer of the cervix uteri are limited to a very small number, but each has a significant part in the diagnosis, namely: (1) Leukorrhea (which term is unsatisfactory because of its wide application to any vaginal discharge). (2) Menorrhagia. (3) Metrorrhagia. (4) The pre-, co-, and post-climacteric hemorrhages; and, under the first of these, bleeding may be grouped as menorrhagia or metrorrhagia, for it is during the co-climacteric stage that diagnosis becomes most difficult, and too often it is evi-

dent that one takes too much for granted and exerts too little effort, even to the extent of failing to make a pelvic examination.

The patient's history is important and should include (1) single; (2) married; (3) menstrual record; (4) number of pregnancies; (5) number of miscarriages; (6) condition at parturition; (7) menorrhagia; (8) metrorrhagia; (9) climacteric; (10) vaginal discharge—mucoid, purulent, sanguineous, or a combination, and a malodorous type; (11) previous treatment—medical, surgical, radium, x-rays; (12) pain. In cancer of the cervix, if pain is present, the disease has probably advanced too far for any treatment other than that directed toward palliation and symptomatic relief. In connection with the history, there is one other condition encountered occasionally, and that is, pregnancy complicated by malignancy; in our series, 4.4%, but Mayer reports 1.6%.

After the history has been taken, a thorough pelvic examination is called for and such an examination is not complete without an examination of the rectum.

On pelvic examination cancer of the cervix may present (1) a small tumor in the form of a hard nodule in the substance of the cervical lips; (2) a circumscribed, indurated ulcer of the portio, or cervical canal; or, (3) more diffuse, low, papillary outgrowths covering portions of all of the cervical lips and the canal. Some are very extensive when first seen, with marked induration and swelling of the cervix, while others present an excavated ulcer. (4) Large papillary or condylomatous growths. Cervical cancer usually occurs along the external os as an outward growth, rather than along the internal os as an inward growth. The lesion usually bleeds freely upon manipulation, except in the very early stages. Every suspicious cervical lesion should be considered malignant until one can prove it to be benign.

There are certain diagnostic aids which are desirable and others which are essential. A biopsy is absolutely essential for every patient suspected of having carcinoma of the cervix. If the piece of tissue examined is positive for malignancy, x-ray examination of the bony pelvis, lumbar spine and chest should

be made. Other desirable examinations are, a smear of all exudates, and a Wassermann test. On establishing the diagnosis of cancer, there are other factors which must be given consideration. First, the extent of the growth macroscopically; second its histologic malignancy. In 1920, Schmitz offered a classification of the macroscopic appearance, and divided cervical cancer into 5 groups: *Group 1.* A cancer clearly localized within the cervix. The size is determined by palpation and inspection. The genital organs are movable within normal limits. *Group 2.* A growth which has extended to the periphery of the cervix in a longitudinal or transverse direction. The uterus has an impeded movability due to a dough-like consistency and decreased elasticity of the parametrial tissue. *Group 3.* Either the parametrium or the regional lymph nodes have been invaded, or both, a fact which is determined by rectal examination. The tumor mass is movable, though elasticity of the tissue is lost. *Group 4.* Carcinoma with absolute fixation of the pelvic organs. *Group 5.* Recurrent after operation. The macroscopic classification is important because it is a guide through which prognosis may be expressed. The histologic malignancy is the method of evaluation of the degree of malignancy by microscopic examination. Broders is responsible for the development of this method. It is a means through which the prognosis may be expressed on a numerical basis. By dividing the carcinomas into 4 groups, according to their degrees of cellular differentiation, he obtained a scale of mortality percentages rising correspondingly to the decrease of differentiation in these 4 groups. Other men, notably Martzloff, Schmitz and Hueper, have made corresponding studies.

Histologically, there are in cancer of the cervix 2 types, (1) epidermoid carcinoma, subdivided into squamous cell and basal cell; and (2) adenocarcinoma. The squamous cell variety is much more frequent than the others. Adenocarcinoma is more fatal but, fortunately, it occurs less frequently.

After obtaining all the data possible, regarding extent of the disease, some definite line of attack should be planned. This requires the full coöperation of the patient, who

should remain under careful observation for the rest of her life. It is essential to note her general nutritional state; have a complete blood count at frequent intervals of time; free the cancer-bearing area of any secondary inflammatory process. A cystoscopic examination should be made if the patient is of Group 3, or above, or if she has urinary symptoms.

Treatment was formerly based on whether a patient was operable or inoperable. In 1898 Wertheim began a radical attack upon cancer of the cervix by doing an extensive pelvic operation. Favorable results were obtained but the method carried with it a very high mortality rate. Today, the term *inoperable* applied to cervical carcinoma is obsolete. The advent of radium as a therapeutic agent, and the improvement of radiation technic, have yielded results more favorable to radiation than to surgery. The patients first treated with radium were advanced and unfavorable, but as experience accumulated it came into use in what were previously termed operable patients. Now, we feel that radiation, rather than surgery, is the treatment of choice for all patients with carcinoma of the cervix, irrespective of extent of the disease. Healey states that "radiation therapy has a wider field of use in the treatment of carcinoma of the cervix than has hysterectomy, and may be used to advantage in all cases, favorable and unfavorable, for cure". The technic for use of radium has not yet become entirely standardized. In Sweden, Heyman is using a combination of x-rays and radium. This is also true for the Memorial Hospital, in New York City, and in some other large clinics, and it is now our practice also. The radium is applied at 2 different sittings, with an interval of 2 weeks between. One month later a course of deep x-ray therapy is given by the so-called "four port technique". Sometimes it is advisable to repeat the course of x-ray treatments after an interval of 6-8 weeks, but sufficient time has not elapsed to make it worth while to report our results by this combined treatment.

In conclusion, cancer is a treacherous disease. It is a traitor to its host. Our greatest asset in its control lies in early diagnosis. This should cause every female patient upon the

least suspicion of any disease of the female generative organs to seek the advice of her physician immediately. It does not mean, however, that we will detect every cancer in its early stage, but we will be able to intercept a large number.

THE MODERN MANAGEMENT OF MALIGNANCY

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Dr. H. R. M. Landis states that the family physician encounters tuberculosis in some form daily. I venture that this statement holds true for cancer. The possible occurrence of malignancy in any tissue makes treatment a subject of universal medical interest. From observation, from medical literature, and from personal experience, I have become strongly impressed by the importance of efficient cancer management, and this is the subject which I have chosen to bring to your attention.

I shall not describe neoplasms of the head and neck, because of the multiplicity of histologic types. Quick, quoting Ewing, states that 37 varieties of growth have been found in or about the nasal passages. So, I suggest the following practical rule: that persistent ulcers and tumors, unidentified as manifestations of constitutional disease by the usual clinical examinations, be regarded as malignant.

The Radium Institute of Paris routinely performs biopsies for the scientific study of tumors and their reaction to radiation. Birkett does not follow this practice, and Crowe has emphasized the limitations of biopsy in the diagnosis of tumors of the nose and pharynx. Many of the following details may seem unnecessary but treatment requires more than mere recognition of malignancy; for an unqualified diagnosis of cancer is as unsatisfactory to the cancer therapist as one of dermatosis to the dermatologist.

KNOWLEDGE OF THE DISEASE NECESSARY FOR SATISFACTORY MANAGEMENT

Accepting a diagnosis of malignancy, an analysis of the tumor immediately becomes necessary. The behavior of untreated tumors is rarely observed or recorded today. According to Ewing: "It is a nearly universal assumption that all tumors possess unlimited powers of growth and that unless they are dealt with summarily they will continue to grow indefinitely. This assumption is not justified." He illustrates this principle with the history of chondromas, fibrosarcoma of bone, mixed tumors of the salivary glands, cutaneous neurofibromas, uterine myomas, adenofibromas of the breast, adenomas of the thyroid gland, and pigmented moles.

The physician will be repaid by careful history and examination of any tumor. The size, consistency, color, and tendency to ulcerate, play a part in diagnosis and in the selection of appropriate treatment. The ease with which the information is obtained and the opportunity for professional training, recommends this measure. The significance of physical characteristics must be sought in a mental picture of the composite histologic tissues and that helps one to anticipate reactions to radiation.

Clinical examination and anatomic knowledge should be sufficiently extensive to enumerate the anatomic tissues involved by the tumor. These will influence treatment and, at times, the results. As an illustration, I may name the importance of determining the involvement of bone or cartilage by skin tumors; involvement of the alveoli and antrums by carcinoma of the mouth; and the extension of cancer of the cervix to the ureter. In speaking of metastasis, which, of course, should be sought, I wish to direct your attention to the distant silent metastases such as occur in carcinoma of the breast and prostate. X-ray examination is a method which should not be omitted prior to the selection of treatment.

In a tumor study, one must not overlook the constitutional and mechanical effects of malignancy. Tumors of the upper digestive tract produce slow starvation; those of the

stomach and bowel, obstructions with their attending toxemia, alkalosis, and tetany. Metastasis to the mediastinum must be remembered as well as the frequency of hydrothorax in breast carcinoma. Knowledge of such complications modifies treatment and leads to a better understanding of the progress of this disease. It is important to remember that the same tumor may present different clinical pictures. Thus, cancer of the tongue appears as leukoplakia, a nodular mass, an ulceration, or it may be buried under normal mucosa; the last mentioned type having been described by MacFee. It is also important to know the growth peculiarities, exclusive of metastases, presented by certain tumors. In this connection, the following tumors may be chosen; melanoma, with its early, widespread metastasis, as described by Evans and Lecutia; the tendency of keloids to recur after excision; and, the peculiar pharyngeal fibroma of youth, growth of which spontaneously stops about the twenty-fifth year, according to Crowe.

The same type of malignancy arising in different tissues, and even in the same tissue, may show distinct biologic properties. Birkett and, later, Quick, emphasized the difference in histology, etiology, and radiosensitivity of cancers in various areas of the tongue. A biopsy is indispensable for the scientific study of tumors and their reaction to treatment.

Our knowledge of tumors would be incomplete without recognition of their earliest microscopic appearance, which consists of changes in individual cells. This subject has been emphasized by McCarty and is of great importance in the study of pre-cancerous conditions such as gastric ulcer.

Not only is the histogenesis of a tumor necessary, but so is a knowledge of the blood vessels and other constituent tissues. The connective tissue series is relatively radio-resistant. Thus, a tumor with extensive stroma may not entirely disappear under radiation. As a further illustration of the value of histology, the radiosensitivity of squamous cell tumors and the radioresistance of those derived from glandular epithelium, may be cited.

It is advantageous to create a mental image of the histology of the tumor in any attempt to understand the significance of the gross

pictures presented during treatment. The physician will receive aid in this practice by studying sections of the patient's tumor or those of a similar tumor. The pathologic reactions in and around tumors are complicated by inflammation, repair, and, at times, sclerosis. Such a visualization will enable one to appreciate the time required for the disappearance of tumors, the degree of disappearance to be expected, and the part played by circulation in the reaction to radiation, the importance of which has been pointed out by Lacassagne.

Pathologists early noted the relation of the histologic structure of carcinoma and the outcome of the disease. Broders, Schmitz and Hueper, and others, have refined this method of prognosis by a systematic analysis of the microscopic structure, which is called the *malignancy index* or the *grading of tumors*.

Factors, other than histologic, which influence cellular reactions to radiation have been summarized by Stewart as follows: "The embryonal quality of a tumor, the degree of anaplasia, the fundamental tissue of origin, the degree of papillary character, the cellularity, the circulating status of the tumor body, the presence or absence of infection, the general status of the individual (anemia and chachexia)."

Knowledge of the *tumor grade*, and of its radiosensitivity, finds important application in the selection of treatment. Observation of the peculiar behavior of certain tumors to radiation led to their recognition as malignant entities, of which Ewing's tumor of bone, and his lymph endothelioma of the tongue, are examples. Thus, the *malignancy index* is of importance in prognosis and in the science of radiotherapy.

KNOWLEDGE OF THE PATIENT NECESSARY FOR SATISFACTORY MANAGEMENT

If we now turn our attention to the patient, to the exclusion of the tumor, other factors bearing on the results may be discovered. By a careful history of pre-cancerous conditions, previous tumors, and operations, one may avoid the mistake of regarding a metastasis, or a recurrence, as a primary tumor. Such errors may occur in metastasis of small gas-

tric carcinoma, in ovarian cancer with breast metastasis, in remote metastasis from carcinoma of the breast, and in the general metastasis from melanoma. The patient's age is of value in prognosis. The rapid growth and early metastasis in young patients is too well known to require authoritative substantiation.

One should remember that unilateral and bilateral cervical masses may arise from small, symptomless, primary malignancies of the nose, throat and nasal sinuses. Careful examination is necessary for the exclusion of co-existing, nonmalignant disease. The presence of glycosuria, syphilis, and infection of the teeth, kidney, and female pelvis, directly influence treatment. Exclusion of lues, tuberculosis and leukemia, may be necessary in differential diagnosis. Marked anemia may contraindicate radiation; and the adverse influence of moderate anemia on radiosensitivity has been experimentally established by Mottran. The presence of fever must be known and may require the same study as unexplained fever in internal medicine. This is not an academic point but the regular practice of the Radium Institute of Paris. Maintenance of the patient's health, and avoidance of measures which undermine health, are principles of treatment which Forssell (quoted by Berven) established at the Radiumhemmet, Stockholm.

The importance of the general examination may be shown by the following cases: A pathologic fracture arising from hypernephroma was discovered by uroselectan; an ulceration of the palate, referred as cancer, resulted from leukemia; a large ulceration of the tongue, referred as cancer, proved to result from Vincent's infection; a patient with cancer of the face was found to have carcinoma of the sigmoid; a patient with a shadow of the antrum, originally believed to be an invasion from a cancer of the gum, was found to have Paget's disease; and, a suspected case of lung carcinoma was found to be a hypernephroma.

KNOWLEDGE OF CANCER TREATMENT NECESSARY FOR SATISFACTORY MANAGEMENT

With a knowledge of the clinical, anatomic, histologic, and radiosensitive aspects of the tumor, and with a thorough understanding of the complications and the general health of

the afflicted patient, one is prepared to select the best form of treatment. This choice requires a knowledge of the advantages, limitations, effects, and mechanism of each form of therapy.

Although certain cancers may be eradicated by several types of treatment, the general health of the patient, the cosmetic result, or some other factor may give preference to one form. Frequently, a particular type is superior. Its selection requires exact knowledge and extensive experience, as well as skillful execution. No clinic is uniformly successful in treating cancer but failure should result from the uncontrollable aspects of malignancy and not from poor judgment or lack of skill.

Cancer therapists should strive for a knowledge of all treatment methods by personal experience and study of the experience of others. Knowledge thus gained finds application in the selection of treatment for the individual patient and results in improved statistics. It may be an impracticable ideal—for many to acquire judgment and wisdom in this way—yet knowledge of the exact accomplishment of various therapeutic agents is indispensable to the best management. To those lacking opportunities for experience with the various methods, careful observation of the results obtained by others must act as a substitute and be supplemented by study of the literature published by the leading clinics.

The surgical results of histologically proved cases is recorded in extensive statistics and, as a rule, excision is first considered. Radiation is rarely used as a substitute but as a complementary measure. Keynes' treatment of operable breast carcinoma, with radium implants, has been undertaken only after several years of experience with inoperable conditions and is not recommended as a routine measure.

The surgical principle of total excision is ideal but cannot always be practiced because of the extent of the disease. Surgery avoids the complicated technical factors of radiation and the perplexing problems of tissue reaction to radiation. However, the effects of surgery are sharply limited by the line of excision, as tissue beyond that point is not affected. Surgery demands an adequate margin

of normal tissue the width of which varies with the cancer. A technic which avoids cancerous implantations of the wound must be chosen. Highly malignant, operable tumors may not be suitable for surgery (Lee and Tannebaum-Adair).

The highly malignant, inoperable, inaccessible, or extensive tumors are usually treated by radiation. It is an error to believe that this is a simple method and that carelessness in its use, or ignorance of its action, will accomplish results. Though not affording the spectacle of the surgical amphitheater, skilful radiation demands diversified and accurate knowledge. From an humble, empiric beginning, this method has been brought by the combined work of physicists, investigators and radiologists, to a precision comparable or exceeding that of other branches of medicine. The radiotherapist must have a knowledge of tumors and their constitutional effects. In addition, he must possess information dealing with the production and physical measurement of radiation and the biologic effects.

Physical measurements are necessary to accurately measure the amount of radiation received by a tumor and that received by neighboring tissue. The simplicity of this statement will mislead the uninitiated. Anatomic cross sections, depth dose curves, standardization of x-ray machine in roentgenograms and continuous ionization reading of the radiation output of the machine during treatment, are all considered essential to the technic practiced at the Jeanes Hospital.

As radiation is an agent powerful for good or evil, its most effective use requires accurate knowledge, and the results demand administration to the maximum tolerance of normal tissue. Some radiation problems, studied for years to develop our present technic, include: relations of the biologic reaction and the wave length; erythema dose; depth dose; tumor dose; tissue tolerance; total dose; and, division of dose.

The gamma rays of radium belong to the lower end of the electromagnetic spectrum which extends from radio waves to cosmic rays. The method of affecting protoplasm is the same and probably results from ionization of the constituents of the protoplasmic cell.

There are different opinions regarding the site of its effect, but that attributing the effect of radiation to a direct action on the cell, as suggested by Lacassagne, is most favored. Regaud believes that gamma rays have a greater selectivity than hard x-rays. Selectivity, which is the fundamental principle of all radiotherapeutics, may be defined as the destruction of cancer and the preservation of normal tissue.

Certain differences exist in the technical use of radium and x-rays. Radium, which has been likened to a small x-ray tube, produces a shorter and more penetrating wave length; a localized effect, uncomplicated by constitutional reaction; and, in small amounts, is usually held in contact with the lesion for hours. As the intensity of each decreases inversely as the square of the distance, the x-ray gives a better depth dose and is, therefore, usually used for deep seated tumors. When 2 to 4 gm. of radium is available, it may also be used for radiation at a distance.

The investment of \$60,000 to \$250,000 in a radium pack is convincing evidence of the opinion of others regarding the superiority of the therapeutic effect of gamma rays. Regaud has summarized his years of investigation and clinical experience in the following principles of radium therapeutics: (a) Homogeneous radiation; (b) selective cyto-lethal radiation (penetrating radiation purified by filtration) which destroys radiosensitive cells without serious injury to the general tissues; (c) prolongation of radiation to a definite limit so as to make radium therapy of some cancers more effective without markedly increasing the dose; (d) avoidance of tissue immunization (cancer resistance and tissue sensitivity) by frequent, prolonged, non-lethal doses of radiation; (e) destruction of the basal mother cell layer of cancer tissue which is more sensitive than succeeding generations. Though these principles appear simple, a great amount of investigation has been necessary before the clinician could utilize them in his daily work. Cutler, Failla, Grier, Kaplan, Lacassagne, Reinhard and Goltz, Schmitz, Quimby and Stewart, Quimby, Regaud, Widmann and Weatherwax, Coutard, Pfahler, Zuppinger, Martin and Quimby, each and all have given invaluable aid to the physician and pa-

tient by their studies of these problems. In times past, radiosensitivity was more or less unknown, as was the effective total and tissue doses of radiation. Many of the poor results undoubtedly were due to inadequate radiation.

The psychologic effect of radiation reactions, on the patient and on the family physician, should be mentioned. The seriousness of untreated cancer is overlooked in the presence of a skin reaction and, at times, the latter's relatively trivial nature is sufficient to interrupt treatment and allow the disease to take its course. The knowledge that radical methods are necessary in the cure of cancer should always be remembered by the general practitioner. I do not wish to be understood as endorsing radionecrosis as the result of inefficiency, but I do believe that a widespread knowledge of the methods and results of Coutard's technic would enlist for the radiotherapist the general practitioner's support.

The technical problems concerning the use of x-rays are concerned with the maintenance of a radiation of known wave length in the tumor. The problems of radium are concerned with tissue absorption, and with the distribution of small sources to insure homogeneous radiation. The use of radium, either as surface application or implantation, requires skill and meticulous observation of technical details, for success.

Although totally unexpected improvement following radiation has been recorded by various observers, and palliative radiation (Wood) is a useful function of radiotherapy, I believe that certain hopeless cases should not be treated by this method. This applies particularly to advanced radio-immune malignancy. Too often, the patient or his friends, from whom the nature and stage of the disease have been withheld, confuse the symptoms of progress of the disease and the effect of radiation, to the ill-repute of the latter.

Electric cutting and coagulating currents have their greatest use in the treatment of malignancy. Clark and Ward, of Philadelphia, and Berven, of Stockholm, have written extensively on this subject. A properly ad-

justed cutting current is particularly suitable for biopsies, as it prevents cancerous implantation in the surgical wound.

Section and injection of nerves play an important part in the palliative treatment of pain arising in malignancy.

KNOWLEDGE OF THE RESULT OF TREATMENT

Another aspect of cancer management remains which may not require scientific knowledge but demands enthusiasm, tact, and persistence. I refer to the continued observation of the patient following treatment. Much of the progress of the science of radiotherapeutics rests upon this foundation (Forssell). The value of follow-up in the eyes of the Swedish physician and patient is evidenced by the practice of that country's government, in paying the railroad fares of indigent patients returning to the Radiumhemmet. Martin's, Quimby's, and Pack's valuable determinations of adequate dosage for mouth carcinomas would have been impossible without their *follow-up*. Ward's unusual success has resulted from the opportunity for detection of early recurrence, and re-radiation afforded by personal follow-up. Statistics such as Berven's and Heyman's are the test of a therapeutic technic; those of Pfahler and Widmann show what can be accomplished in private practice.

The scope of knowledge needed in cancer treatment is evident. Both the American College of Surgeons and the American Society for the Control of Cancer have, therefore, advised that the personnel of a tumor clinic shall include a pathologist and a physicist, in addition to the specialists in clinical branches.

The temperament of the radiotherapist has been described by Holfelder as a combination of the diagnostic skepticism and the patience of the internist, and the courage and promptness of the surgeon. All medicine is in a stage of progress. Advance in the management of malignancy depends upon: (1) Knowledge of the tumor. (2) Knowledge of the patient. (3) Knowledge of treatment. (4) Knowledge of the results.

NEWEST DEVELOPMENTS IN ROENTGEN-RAY DIAGNOSIS, With Special Reference to Use of Contrast Media

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The progress of roentgenology in relation to medical diagnosis has been rapid from its beginning, and new methods, further increasing the value of this branch of medicine, are constantly being developed. The crude picture of Mrs. Roentgen's hand, which was one of the first taken with Roentgen's primitive armamentarium, is in striking contrast to the elaborate machinery and the clear picture of today. While it took Roentgen $\frac{1}{2}$ hr. of exposure to get that picture of his wife's hand, our modern equipment can take pictures of similar character in $1/1000$ of a second. High tension cables and even tubes are made shock-proof, so that the patient may actually hold the tube in his hands while the picture is being flashed.

At present we are passing through an era in which we recognize more and more the importance of radiopaque substances. These contrast media may be introduced into various parts of the body in order more clearly to outline certain organs, which, in front of an x-ray screen, because of their anatomic structure, do not differ in density from their surroundings. Reider introduced the first contrast medium for use in roentgenology. In order to visualize the gastro-intestinal tract he gave to a patient a meal containing bismuth. Today we are using the less toxic substance—barium. Recent progress in study of the gastric mucous membrane has added materially to recognition of finer details of the tissue structures. By giving the patients just 1 or 2 tablespoonfuls of barium in a glass of water, we can see through the thin barium suspension. Gradually the barium will settle between folds of the mucosa so that we obtain useful information as to their appearance. The rugae usually run nearly parallel to one another longitudinally through the

stomach. In the presence of ulceration they become distorted in that region and sometimes converge toward the ulcer. A similar condition can be observed in early cancer. Small polyps stand out very clearly, if between the folds. In gastritis we find a general thickening of the mucous membrane.

A similar method has been developed for study of the large intestine. After the usual barium enema has been evacuated, air is injected into the rectum by a rubber syringe, under fluoroscopic observation. Though the enema has been expelled, there will be some barium left throughout the large intestines and turning the patient several times around his axis will cause adhesions of the barium to the colon wall, and we are able to see very clearly the entire colon outline. This method was devised by Fischer and has recently been made a matter of exhaustive study by Weber and others. Any ulceration or small growth can be detected much better than if the bowels were completely filled and with the barium shadow densely overlying the lesion. In this way we are able to detect small tumors, polyps, diverticulums, ulcers and tuberculous conditions, and adhesions to the large intestine. Since Fitzgibbons demonstrated that polyps are to be looked upon as definite pre-cancerous lesions, their early recognition in the abdomen may be a life-saving measure.

Administration of tetra-iodo-phenolphthalein for visualization of the gall-bladder has become one of the most important tests of liver and gall-bladder functioning and in the hands of an expert it demonstrates clearly even the slightest pathologic condition of the gall-bladder. Statistics show that if administered properly the oral gives the same high percentage of exact results as the intravenous method. However, the directions, such as were outlined recently by Kirklin, must be adhered to strictly. The dye should be given in sufficient quantity and in a fairly absorbable form. We now have a choice of a number of good and palatable preparations, which do not cause nausea or vomiting, nor act as a cathartic, as was the case, formerly, when given in pills and capsules. It is advisable to let the patient take the dye immediately after a full meal contain-

ing a minimum of fats, and fats should be avoided thereafter until the gall-bladder has had opportunity to fill with the dye-laden bile and to effect further concentration. The first picture of the liver and gall-bladder should be made 12 hr. after the dye was given. Any possible amount of gas in the intestine obstructing the gall-bladder can be eliminated later by soap-suds enemas or, one may have ordered the patient to take 1 Luizym tablet 3 times daily for 2-3 days previous to the intended examination. Luizym contains enzymes which aid considerably in carbohydrate digestion, and which decompose cellulose and hemicellulose, thus preventing the formation of excessive amounts of gas. During the examination, the patient is allowed to take fruit juices, water, coffee or tea without milk or sugar; and, 16 hr. after giving the dye, another picture is to be made, to show the dye at the highest point of concentration in the gall-bladder. One can judge from the degree of this concentration whether or not there is a pathologic condition in the gall-bladder wall, and to what extent, as the gall-bladder alone has the power of extracting water from the bile, which enters the gall-bladder in a rather liquid form. As soon as an inflammatory process weakens this power of concentration, it can be noticed in the picture. Stones show as defects in the shadow of the dye-laden bile, and may be demonstrated even better in a picture taken at 17 hours. To produce contraction of the gall-bladder, the patient should have a meal rich in fats, before the 17 hr. film, for, within a few minutes after ingestion of such a meal, the gall-bladder will start to contract and further, the manner in which it contracts permits us to draw some conclusions regarding its condition. Other pictures may be taken at 18 and at 20 hours, because by that time small papillomas of the gall-bladder, which are more frequent than heretofore supposed, can best be demonstrated. Kirklin has shown us recently how to distinguish a papilloma from a small stone in the gall-bladder. A papilloma keeps its position, no matter how the patient is placed; is never more than 1 cm. in diameter; is never found on the lowest point of the fundus, but is often

marginal; and, there may be several in one gall-bladder. The "gall-bladder series" is completed with a picture taken the following morning; i. e., 36 hr. after the dye was taken, and then the patient should receive a small barium meal to aid investigation concerning the relation of the stomach and duodenum to the gall-bladder. Although all symptoms may point to a gall-bladder condition, there may be an ulcer or a carcinoma of the stomach or the duodenum, with the gall-bladder entirely free pathologically. A faint shadow of the gall-bladder may indicate that its wall is thickened by chronic inflammation, but it may mean only that the bile cannot fill the gall-bladder because of multiple stones. Complete absence of a shadow may be due to any of several factors, as Steward and Illick have shown. The system may function with such rapidity that, when the films were exposed, the dye had already passed through the gall-bladder. Secondly, the gall-bladder may have lost its power of concentration, and the bile remained so thin that the iodine cast no shadow. Thirdly, the bile may be of such high consistency that it did not mix with the iodine. Finally, the gall-bladder may be filled entirely with non-opaque stones, preventing entrance of the dye. In some pictures one sees a stone in the gall-bladder region, which may prove to be not in the gall-bladder but in the kidney; which can be diagnosed after the gall-bladder contracts away from the stone. If, after a fatty meal, the gall-bladder shadow fades away, without any evidence of contraction, adhesions are suggested.

About 15 hr. after administration of the gall-bladder dye, one may see a faint shadow of the entire liver, as well as one of the gall-bladder but shadows of the liver and of the spleen can be demonstrated more distinctly by injecting into the blood-stream a *thorium* combination called "thorotrast" which contains about 25% of metallic thorium and tends to be deposited in the reticulo-endothelial system. Here we find its granules arranged around the nucleus of the Kupfer star cells, and there they remain for many months. It is not yet known whether the slight radioactivity of this compound will be injurious to the system. In cirrhosis of the liver the

granules are not deposited so densely as in a normal liver. Metastatic carcinoma will leave a round defect in the liver shadows. The spleen can be demonstrated in the same manner—with thorotrast—and any increase in size can be clearly seen in the picture.

After the introduction of uroselectan for visualization of the uropoietic system, there was a time when one predicted that it would eliminate pyelography but experience has proved that both methods have their fields of usefulness and in difficult cases they are excellent adjuncts to each other in clarifying the diagnosis. It must be admitted that we have not yet fully exhausted the diagnostic value of the new method. As we know more about pyelography, we are rather more inclined to fall back upon it when we are seeking a diagnosis for a patient who has already been subjected to intravenous urography. The picture produced by the intravenous method represents a much more nearly physiologic condition than the pyelogram. In the nature of this lies the fact that a non-functioning part of the kidney will not show up with such contrast as it will in a pyelogram. Perhaps this can be remedied by introducing a compound which will give stronger contrast than uroselectan. The recently offered "skiodan" is a distinct improvement. However, there are still cases in which a pyelogram, for a check-up, is necessary in order to obtain clearer detail. The greatest value of the intravenous method is that it can be used with patients on whom pyelography is very difficult, as in children, or is entirely contraindicated because of advanced age, weakness or deformity. Intravenous urography is of greatest value in the demonstration of stasis. Here we find the outline of the calyces and the pelvis very clear, and a diagnosis of pyelo-ectasis and uretero-ectasis can easily be made. Hydronephrosis can also be well diagnosed. When suspicious of stone the differential diagnosis can be made by the new method with far less disturbance to the patient than by the pyelogram. The new method has been most disappointing when dealing with renal tumor, especially in early cases when the defect caused by the growth is so dimly outlined that it is impossible to make the proper diagnosis without aid of the

retrograde pyelogram. Through the course of discharging the contrast fluid from the kidneys we may obtain very distinct evidence of the renal function on both sides. For this reason, pictures are taken at 15 and 45 minutes after injection, as well as at 3, 6 and 24 hours. With improvement of the chemical to be administered, intravenously or orally, as well as of the visualization and recognition, the new method will gain greater importance.

Through the work of Dandy, Pancoast and Pendergrass, in this country, and Juengling and others in Europe, the insufflation of air, directly into the ventricles of the brain or through spinal puncture, has become of great value in the diagnosis of brain tumors, brain abscesses, basal arachnoiditis, and other conditions which cause a blocking of the ventricular system. Through removal of the cerebrospinal fluid and its replacement by air, any deformity in the ventricles or the subarachnoidal space due to the above mentioned conditions, can be visualized on the x-ray film. Encephalography is a far simpler procedure, with less mortality. Through filling the subarachnoidal space, as well as the ventricles, one gains a better impression of the brain as a whole. In some cases both methods have to be employed. Through puncture of the cisterna magna, or through spinal puncture, Dandy and others have been able to demonstrate lesions in the spinal cord, by injection of iodized oil. Uroselectan has recently been injected with good results. The indications for myelography may be a type of compression on the spinal cord, caused by tumors or inflammatory conditions. The iodized oil will descend the spinal canal and stop at the constriction. The point of stoppage may differ with the neurologic findings, but at operation the injection method has proved to be more accurate.

Iodized oil has long been used for diagnosis of nasal sinus conditions. The contrast medium is introduced through a cannula into the ostium of the sinus, or through a direct puncture. With these methods all sinuses, with exception of the ethmoids, can be reached. A third method is that of displacement. Proetz deserves the credit for developing this method to satisfaction. The principle can be explained

by using a test tube with an hour-glass constriction. When liquid is placed in the upper section, the air from the lower will not escape, but if negative pressure is applied to the top of the upper chamber, part of the air in the lower chamber will escape through the fluid. Discontinuing the negative pressure will change the equilibrium of pressure in both parts of the tube, and as much of the fluid in the upper chamber will be forced into the lower, as air had previously escaped. Exactly the same phenomenon will take place in the nose, if we compare the upper chamber with the nasal cavity and the lower chamber with the sinuses. By placing the patient's head in a reclining position and inserting the iodized oil through the nostrils, the oil will be lodged in the posterior and upper part of the nasal cavity. Most of the ostia of the sinuses will be submerged. By means of a suction machine, negative pressure can be exerted alternately on the nostrils. If at the same time the patient should close the pharynx by saying "K" the air will drain out of the sinuses and the oil will gradually enter to take its place. After this the patient can expectorate the surplus oil, and what remained in the sinuses will be demonstrated on the x-ray film. The pictures must be taken in such way that the central ray passes parallel with the plane of the surface of the fluid. For this reason the head of the patient is placed in 3 different positions, and postero-anterior, lateral, and vertical, pictures taken. In case of a normal sinus, the oil will have penetrated the sinus if its ostium was submerged. The shadow of the oil will follow closely the shadow of the bone around the sinus with only a very thin line of the mucosa between them. Any broader shadow may be taken as something pathologic. The anatomic arrangement of the sinuses is never symmetric, as is most beautifully shown by this displacement method. We even find that cells from one side may reach over to the other, which explains the fact that a headache may be felt on one side while most of the pathologic condition is actually on the other. Some of the cells may be entirely free of oil, or only partly filled. Far more significant than failure to

fill, is failure to empty the sinuses. In a normal case, all sinuses have discharged their oil 96 hr. after injection. At 72 hr. we find only a very slight amount of oil present. Any greater amount of time means that the sinus has lost the power of discharging its contents, either through obstruction of the ostium or through deficiency of the ciliary apparatus caused by chronic inflammation.

For the introduction of iodized oil into the bronchial tubes several methods have been devised, such as the translottic, subglottic, supraglottic and bronchoscopic. The general opinion is that the supraglottic method is simpler than the others. It saves time and avoids a number of dangerous inconveniences. After injecting the oil the patient is placed in several positions in order to allow the oil to flow into the bronchi. With this method we can beautifully demonstrate cavities, bronchiectases, malignancies and abscesses. In bronchiectasis, the method gives exact information as to the extent and severity of the condition. In tuberculosis, the method should be employed only with the greatest care. Elimination of the oil is gradual. The patient expectorates one-half to two-thirds of the oil in a very short time, and the remainder is eliminated through absorption or gradual expectoration.

Through the work of Rubin and his co-workers the injection of contrast fluid into the uterine cavity and tubes has been introduced into this country. Rubin wanted first to demonstrate a case of sterility as due to non-patency of the fallopian tubes. He injected 3 to 10 c.c. of sodium bromide into the uterus under light pressure. At present iodized oil is usually employed. In the x-ray picture one sees the typical shadow, of triangular shape, representing the uterine cavity. On both sides extend the fallopian tubes, with the oil freely discharging over the fimbria into the abdominal cavity. The method is of value in detecting developmental anomalies in the genital organs, as well as tubal affections leading to sterility. It is also useful in uterine tumors, malignancies excepted, and in certain extra-uterine tumors, by indirect evidence. One can also draw positive conclusions about the position of the uterus and its adnexa. The thera-

peutic effect of the injection of iodized oil has been stressed by a number of authors. In chronic cases, it sometimes brings about complete relief of the patient's complaints.

In conclusion, permit me to state that the introduction of contrast media has aided materially in Roentgen ray diagnosis. With their assistance we have gained additional knowledge of the normal and the pathologic condition of almost every organ in the human body. Most of the methods are still of recent origin so that their limitation is not yet known, and perhaps their diagnostic possibilities have not yet been fully disclosed.

NEGLECTED CONSIDERATIONS CONCERNING COLITIS

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Of the patients seen by the gastro-enterologist a great number have symptoms referable to the colon. Eliminating the clear-cut group with "ulcerative colitis", there remains a much larger group which, in general, is classified under the heading of "spastic colitis", and I wish to present for your consideration certain observations concerning the latter condition.

"Spastic colitis", in reality, is a term which does not represent any one clear-cut pathologic condition. It has long been a convenient term for the classification of patients with various sensations and symptoms mainly relating to the colon. In my work, I have found it necessary, after thorough study, to so classify many patients suffering with low abdominal pain, constipation (or alternating constipation and looseness), chronic exhaustion, gaseous indigestion, under-nutrition, nervousness and mental depression, purgative habit, and the passage of mucus and pencil-like stools.

Patients coming under this category make up a large part of the practice of internists, and especially gastro-enterologists. Much uncertainty and difference of opinion have long existed concerning the etiology of this trouble,

and concerning its proper therapy. I think it may be fairly said that no other general group has been so little understood or poorly treated. As a matter of fact, cults and lay organizations have made capital of the situation and have extensively exploited such patients. It was no surprise to me to receive, a short time ago, a verbose announcement of an "Institute for Colonic Therapy of Washington", which institute, under lay and cult direction, proposed a scheme of colonic irrigations to be carried out with impressive apparatus on specially designed tables. Similarly, I was not surprised to have one of my patients inform me that the more fashionable beauty parlors of Washington have complete equipments, including trained nurses, for the giving of high colonic irrigations. In all fairness, we should take unto ourselves some blame for this state of affairs for there are among us many who indiscriminately employ this same type of treatment, and this in spite of scientific evidence that definite damage to the bowel may be produced by such indiscriminate and prolonged treatment.

A description of the symptoms presented by patients classified as having "spastic colitis" would require much time. In general, however, the symptomatology may be stated as follows: There is commonly a history of prolonged constipation, often dating back many years. The purgative habit has become, as a rule, well established. Abdominal pain is a rather constant symptom, frequently simulating organic gall-bladder disease or peptic ulcer. Because of abdominal pain, a great many, when seen by us, have already been subjected to an abdominal operation—most frequently appendectomy. Not a few have had the gall-bladder removed, and many women have had pelvic operations, such as shortening of the round ligaments or removal of ovaries. Needless to say, these operations have not only failed to give relief but, frequently, have intensified symptoms. Many complain of exhaustion or a chronic sense of fatigue, and we find: low blood pressure; under-nutrition; chronic intestinal indigestion with flatulence and borborygmi; pencil-like stools; mucus in large or small amounts; and the patient may bring in ropes of mucus or formations of in-

spissated mucus which appear to be casts of the bowel. It may be said here that there seems to be no need of distinction between "spastic colitis" and "mucous colitis" because in most cases of "spastic colitis" a certain amount of mucus is excreted, and the exaggerated forms of this constitute the group commonly described as "mucus colitis". Patients presenting extreme amounts of mucus are usually of a particularly nervous type, and the exaggerated amount thrown out probably represents an especially highly-tuned nervous mechanism of the bowel.

Mental depression, introspection and insomnia are complained of by more than half of these patients, and we have been much impressed by the nervous and psychic manifestations they present. Basal metabolic studies have shown rates either normal or low normal.

On physical examination, one commonly notes general under-nutrition with viscerop-tosis, and a cold clammy skin with perspiration often trickling from the axillas. As a rule, one finds a spastic, tense, finger-like, descending colon, quite tender to pressure. The cecum is, likewise, usually tender and spastic, but at times dilated; a state of affairs often erroneously diagnosed as chronic appendicitis. Rectal changes, to be described in one group, are frequently present in the form of hemorrhoids, fissures, cryptitis, and a spastic tight anal sphincter. When the finger is inserted into the rectum the walls of the rectal ampula, instead of being dilated, commonly close around the finger like a loose glove. Sigmoidoscopic examination often reveals an irritated, glazed mucosa of the rectal ampula and lower sigmoid with particles of pasty feces and strings of adherent mucus. Ulcers are not present. The submucosal capillaries may be injected. One is often impressed with the fact that the bowel is not able to properly cleanse itself.

X-ray examinations aid by ruling out organic disease of the gastro-intestinal tube, and in showing a contracted descending colon and sigmoid in which haustral markings are reduced or absent. Not infrequently a dilated cecum and right colon are observed, the result of the spastic left colon having held back

material and produced a cecal stasis. Emptying time of the colon is commonly delayed.

In arriving at the diagnosis of "spastic colitis", one must be on guard concerning other gastro-intestinal conditions and remember that the nervousness and worry accompanying other affections may reflexly produce a spastic colon with x-ray and physical findings similar to those described.

I have felt that from the general group of "spastic colitis" there might be split off certain definite entities. Our observations have shown such a possibility and it is concerning this effort that this presentation deals. There has been a somewhat neglected, but valuable, contribution which has an important bearing on the subject. The work of Colonel Charles F. Craig, in establishing a new concept concerning amebic infection and the pathologic changes which such infection may produce, has been confirmed in my work and it has marked great advance in explaining the bizarre picture of certain cases of "spastic colitis". Colonel Craig and others have established the fact that infection with *Endameba histolytica* is quite common in temperate climates, and that infections need not produce the picture of tropical dysentery but may produce a picture quite in keeping with our discussion. In other words, there are endameba carriers in which the organism may be in a somewhat attenuated state or the host highly resistant, so that the more violent manifestations of the disease do not appear. Nevertheless, in such carriers the symptoms of "spastic colitis" with either continued constipation, or constipation alternating with periods of looseness, may be present. Those interested in this subject should read Colonel Craig's contribution in the Journal of the American Medical Association, April 28, 1928, where he presents a clear picture of the symptomatology of endameba carriers and a discussion of the pathologic changes existing in the carrier state.

About 2 years ago I became interested in the problem of low grade amebic infection, and I have since subjected all questionable cases to thorough study for *Endameba histolytica*. At first it was quite difficult to get satisfactory examinations. Laboratory workers were not familiar with methods of identi-

fication. The routine method of examining smears of feces under the microscope was worthless. Finally, a technic of stool examination along the lines of Colonel Craig's work was developed, and, increasingly, we have been able to identify parasite carriers, until now we are finding quite a number. Identification of the organism in the carrier still is a difficult and time-consuming procedure. Frequently numerous stools must be studied. In a suggestive case one should not declare the patient negative until at least 6 stools have been adequately studied. As already stated, examination of a suspension of feces in normal saline or in the usual iodine solution, as is commonly routinely done, cannot be expected to yield results. The stool must be concentrated for microscopic study. We generally give a glass of citrate of magnesia, and save the third stool, having the patient seal it in a Mason jar and bring it to the laboratory.

A portion of feces, thus collected, about 10 gm., is thoroughly emulsified in 200 c.c. of distilled water and allowed to stand for 20-30 minutes to remove the coarser, heavier particles. The supernatant fluid is then decanted into a 500 c.c. container and distilled water added to a total of 500 c.c. After standing over night in an ice chest (at 8° C.) the cysts may be found in the sediment; or, the same result may be accomplished by slow centrifugation. The supernatant fluid is to be decanted and discarded. The sediment is washed once with distilled water, precipitated by centrifugation at 2000 revolutions per minute for 2 minutes, and transferred to a solution of sucrose of sp. gr. 1.080, and resuspended by shaking the mixture thoroughly (approximately 2 c.c. of sediment to 14 c.c. of sucrose solution). The suspension in sugar solution is then centrifugized at 3000 revolutions per minute for 3 minutes. By this treatment most of the fecal particles left will be precipitated and the majority of the cysts of *Endameba histolytica* and of other amebas will remain suspended. The cysts remaining in the sucrose solution are concentrated by diluting the solution with 3 volumes of distilled water and centrifugizing at 2000 revolutions per minute for 2 minutes, when the majority of the cysts will be found in the sediment. A small

portion of this is placed on the microscopic slide, diluted with iodine solution used in the direct examination of feces for the parasite, protected with a cover-glass, and examined.

The identification of cysts of the ameba is depended upon for diagnosis. Vegetative forms cannot be thus found. Cysts are identified by the usual iodine staining as in routine stool examinations.

The *Endameba histolytica* may be cultivated without great difficulty. The media commonly used is the Locke-egg-serum formula recommended by Boeck and Drbohlav, which has been highly successful in diagnostic cultural differentiation. Research workers are working on other media and it is likely that a simpler one will soon be reported, one selective for *Endameba histolytica*.

The organisms obtained by culture are, of course, in the vegetative stage, and a different stain is used for their study. Study of nuclear form after staining is relied upon for identification of the organisms. In addition to these 2 methods for identification of the organisms, the workers have devised a complement fixation test, but that is still in the experimental stage.

The incidence of the organism, as identified by the above mentioned method, has been quite variable as reported by various workers. The percentage of cases identified at the Army Medical School is quite high. In our own work, I cannot say that our percentage has been high, but as time goes on our laboratory associates have identified an increasing number. In the last 70 stools studied we have identified the *endameba* in 12, and I am thoroughly convinced that much importance should be attached to this work. Andrews and Paulson, of Johns Hopkins University, report in the American Journal of Medical Sciences, January 1931, that, in a study of 522 cases, *Endameba histolytica* were identified in only 2% but no statement is made as to the method of stool study other than the following: "The stools were examined microscopically, irrespective of barium content, within 2-3 hours after they had been brought to the clinic." In a letter to me under date of February 8, 1932, Dr. Paulson states: "Each stool examined for the presence of parasites was sub-

mitted to the following method: Two smears were made, 1 in saline and 1 in iodine solution, and were of course examined microscopically. The iodine solution is composed of 2 gm. iodine and 1 gm. potassium iodide, to 100 c.c. water. No concentration methods were employed for, so far as can be determined, no such methods are available in protozoologic work; I am aware that it is the proper method in the determination of helminths." In connection with Dr. Paulson's statement concerning the lack of concentration method for identification of protozoa, we have found the method already described quite an efficient one. In contrast with the extremely low incidence of infection as reported by these authors, is the report of Craig that, in a study of 116 persons who had never lived in the tropics, 14.6% were found to harbor *Endameba histolytica*, and these were not patients suffering with tropical dysentery but patients who had low grade digestive disturbances of the type we have described.

The following case reports are typical of cases in our private work: Mr. D. V. L., aged 28, was first seen 6-28-26, complaining of general discomfort in the lower abdomen. A complete study at the time revealed no organic situation to explain the patient's difficulty. He complained of much gas with passage of gas by rectum, of constipation, alternating with a little looseness from time to time, and of being generally lacking in strength and vitality. He was 30 lb. below his ideal weight. The descending colon appeared spastic, both on palpation and x-ray examination. He was treated in the usual up-building way, with attention to his diet, administration of various symptomatic and tonic remedies, and regulation of exercise. He went on without much change until the early part of 1930 when *Endameba histolytica* were discovered in the stool. At the time he weighed 151 lb. It may be said here that he had never lived in the tropics, or, for that matter, south of Washington. Treatment was rapidly followed by a clearing of digestive symptoms. In 6 months he gained 22 lb., whereas under 4 years' treatment previously he had failed to gain. He has remained quite well, and this in spite of carrying a much heavier load of work. Ex-

amination of the stool subsequent to treatment failed to reveal *endameba*.

Mr. J. E. E., aged 49, was first seen in January 1927, complaining of intestinal gas with a tendency to looseness, alternating with periods of constipation. No history of passage of blood by bowel, and looseness was never marked. With these symptoms, he had a sense of general lower abdominal soreness. He felt below par and easily became fatigued. These symptoms had existed in a varying degree of severity for a number of years. Routine study revealed no explanation for the complaint other than the finding by proctoscopic examination of an irritated lining of the rectal ampulla and lower sigmoid, the mucosa of the bowel showing a glazed, injected appearance with particles of feces and mucus adherent. Treatment along the usual lines of diet with symptomatic medication accomplished little. The patient went on, reporting in from time to time, until January of 1931, when a study of the stool by the methods described revealed cysts of *Endameba histolytica*. Anti-amebic treatment was instituted. A prompt symptomatic relief followed. Subsequent studies of the stool failed to reveal the organism, and the patient to date has been very well. All symptoms of exhaustion have disappeared. This patient had never lived in tropical climates.

Dr. C. O. A., aged 52, was seen 10/14/30. He was born in Pennsylvania and had never lived south of Washington. He complained of attacks of intestinal gas and constipation. In 1917 he had been diagnosed as having chronic cholecystitis and treated medically for the condition. Following this treatment he enjoyed better health until 1924 when he had an attack of severe diarrhea, lasting during the entire summer. He finally recovered from this condition, and went on until January 1929, when he had much digestive disturbance in the form of abdominal pain and intestinal gas. The gall-bladder was again thought diseased. Removal of abscessed teeth at this time failed to help. He stated that from that time until the time of our examination he suffered with lower abdominal pain, and gaseous indigestion, that he fatigued unduly, and that he was subject to constipation. A complete survey,

including a Graham test of the gall-bladder, failed to reveal positive data, other than the finding of a secondary anemia. Study of the stool revealed cysts of *Endameba histolytica*. Treatment was followed by disappearance of the organisms. The patient has been followed to date, and is splendidly well.

Mr. P. H. C., aged 24, was first treated by me for "spastic colitis" in 1926. A general study revealed only the typical findings. The patient had lived in Florida. He suffered much with constipation, and an occasional attack of diarrhea, intestinal gas, nervousness and fatigue. Although of sturdy build, physical exertion, which he formerly could stand well, thoroughly exhausted him. Insomnia was a feature, and we were impressed with the nervous manifestations presented. Again, as in other cases already mentioned, routine treatment availed little. In May of 1930, after becoming familiar with the newer work on *endameba*, study of the stool revealed cysts of *Endameba histolytica*. Again, treatment was followed by a satisfactory result. The patient was rapidly changed from a state of nervous and digestive semi-invalidism to one of sturdy health.

Mrs. S. H. B., aged 65, has just been studied and the organism identified. She stated that she had been subject to digestive trouble for many years. Complained of weakness, chronic constipation, intestinal gas, lack of appetite, and general muscle pains. She had a series of operations, extending over a period of 32 years, ventral suspension, appendectomy, drainage of gall-bladder, a second operation on the gall-bladder, with its removal, finally a pan-hysterectomy. A complete diagnostic survey revealed a spastic, irritated colon, and a marked secondary anemia; R.B.C., 2,451,000; hemoglobin, 45%; and W.B.C., 6600. Other than this, and the finding of *Endameba histolytica*, the study was negative. The effect of therapy remains to be seen.

Mrs. A. C. McD., aged 50, was sent to me by an orthopedic specialist because of early rheumatoid arthritis. All of the usual foci of infection had been thoroughly cleared. Physical and laboratory studies, except as related to the arthritis and to the finding of an irritated spastic colon, were negative. The en-

dameba were identified in the stool and eradicated. She has experienced complete relief of digestive symptoms, of lower abdominal discomfort and intestinal gas, and has been relieved of chronic exhaustion. She is also much relieved of joint pain.

The case of this patient is briefly reported to bring up a consideration of the possible relationship of focal infection of colonic origin in its relationship to the problem of rheumatoid arthritis. Specialists in arthritis have stressed the rôle of absorption from the colon as a cause of arthritis. Many have recommended colonic irrigations. May it not be that many of these patients, in reality, have endamebic infection with microscopic damage to the bowel, such damage providing a focus of entry for pathogenic bacteria from the fecal contents. We have seen several such cases and feel that there is a possibility of much coming from a thorough study of patients with rheumatoid arthritis along the lines mentioned.

Treatment for the eradication of *Endameba histolytica* has always been a somewhat uncertain procedure. Of late, however, a number of drugs have been brought into the field which seem more effective than those heretofore employed. In our own work we have been employing the following scheme: The patient is given $\frac{1}{2}$ tablet of acetarsone (trade name stovarsol) 3 times a day, after meals, for 4 days. If no symptoms of susceptibility to arsenic appear (dermatitis, looseness, nausea), he is then given 1 tablet 3 times a day, after meals, for 4 more days. The use of stovarsol is then discontinued for 2 weeks, at the end of which time, a tablet is given 3 times a day, after meals, for 4 days. The 0.25 gm. tablet of stovarsol is used.

Four days after completion of the first course of stovarsol the patient is given, 3 times a day, after meals, for 4 days, a 1 gr. salol coated pill of emetine bismuth iodine. This is repeated 4 days after the second course of stovarsol. Much has been written regarding the toxic effect of stovarsol and of ipecac preparations. We have had no trouble with such toxic effects in our work, employing the dosage above stated. It is quite possible, however, in those individuals susceptible to arsenic (the type reacting with dermatitis from

the use of salvarsan), that stovarsol in the above dosage might produce toxic effects. I feel that the preliminary course of $\frac{1}{2}$ tablet 3 times a day for 4 days should give one a clue in respect to such susceptibility. I have found the treatment as outlined very effective in eradicating the parasites.

With use of the above drugs, I employ a smooth type of diet, one having all coarse fiber removed; the same type of diet which we employ in all cases of "spastic colitis". Recently, a new arsenical has been put forward as a specific in Amebiasis Carbarsone. Reed and his associates reported on this drug in the Journal of the American Medical Association, January 16, 1932. They strongly recommend it, claiming that it is less toxic and more efficient than stovarsol. Before we began the use of stovarsol, we had found emetine bismuth iodide a very efficient remedy, and we feel that, even though an arsenical may be used, the emetine preparation should be used in conjunction.

The second entity which we have split off from the group of "spastic colitis" has its origin in relation to rectal pathologic conditions. Not infrequently one finds in a general examination a rectal muscle markedly hypertrophied, heavy and producing a narrowed anal orifice. This condition, in reality, represents a functional anal stenosis. It has its origin in the presence of fissures, hemorrhoids, cryptitis, either present or past. Irritation and infection from these conditions tend to throw the muscle into a spasm, and long continuation of such spasm, with accompanying infection, leads to hypertrophy of the muscle and actual fibrous tissue formation. Consequently, the patient is unable to have a large formed stool, and purgatives become a necessity. The patient describes pencil-stools, when other than liquid stools are passed. This anal narrowing leads to chronic retention, and eventually to a picture in the colon identical with that of spastic colitis. I desire to lay much emphasis on this classification because, although simple and obvious in origin, the patients suffering with it constitute a much neglected group. When actively inflamed fissures or piles are present, the situation is less commonly overlooked, but when later, after such piles or

fissures have healed and only a tense hypertrophied muscle is the finding, the situation is easily overlooked; and in my experience the latter is as important as the former. The spastic condition of the anal canal itself reflexly leads to a spasm of the left colon and sigmoid and thus is produced the typical picture of "spastic colitis".

As in the cases of amebiasis, here too, we have a very fertile source of focal infection in its possible relation to arthritis and kindred conditions. Rectal retention, produced as described, leads to cryptitis. Not infrequently, one may see pus ooze from the anal crypts on anoscopic study. It is probable that focal infection about the anus is the most frequently overlooked of all of the usual foci.

Fortunately the cure of rectal constipation and its associated "spastic colitis" is an extremely simple matter. A thorough stretching of the rectal muscle under gas anesthesia accomplishes an almost spectacular cure of symptoms in the majority of these patients. Constipation is quickly cured; chronic irritation of the rectum and mucosa of the colon subsides; hemorrhoids, if present, disappear without surgical removal; fissures heal. Rectal divulsion, if properly done, does not lead to incontinence, and establishes a permanent opening of the muscle so that the patient, instead of passing pencil-like stools, is able to pass large formed stools. A number of muscle fibers are undoubtedly broken and destroyed by divulsion. Unless a surgeon has had considerable experience in the procedure, he tends to understretch rather than overstretch the muscle, fearing incontinence. As a matter of fact, in my experience such fear is unwarranted. I have had only 1 patient with any symptoms of incontinence; this, in a woman who had been a chronic sufferer with colitis for many years. After a very thorough stretching of a tight sphincter, she did have, and still has, whenever a little looseness occurs, difficulty in holding her feces, and occasionally a little gas will slip by, but in spite of this annoyance she has been so completely relieved of long suffering in connection with her colon that she is one of the most grateful patients I have ever seen.

In reviewing some of the literature on focal

infection in connection with rectal pathologic conditions, I have found that much emphasis has been laid on dissecting out infected crypts and on various methods for removal of piles. In our experience such surgical procedures are rarely necessary. Pathologic conditions of this type promptly heal following a properly done divulsion. The relief of the rectal spasm also automatically relieves the spasm of the bowel higher up.

We commonly carry out this operative procedure under gas anesthesia in the office. The patient goes home and to bed, and is commonly up and about the next day and suffers little discomfort and loses little time. I know of no one surgical procedure which yields so much for so little. I have in my practice no group of patients more grateful than the patients thus treated. The procedure is obviously simple. There is nothing new about it, but I believe it is much neglected.

Briefly, a typical case of this condition is as follows: Mrs. M. M., aged 61, complained of chronic constipation and of lower abdominal pain, dating back 25 years. She used some form of laxative pill each night, finding that she had to shift from one type of laxative to another because any given laxative lost its effect after a short while. She frequently employed enema of soap suds. She gave the additional history, that on several occasions she had a painful condition in the rectum with the passage of small amounts of bright blood smeared on the feces. General examination revealed an under-nourished, nervous woman. The heart, lungs, kidneys, and various abdominal viscera appeared normal. No focal infection was demonstrated, and laboratory studies were essentially negative. The rectal muscle, however, was very markedly hypertrophied and introduction of the finger was accomplished with difficulty and pain to the patient. A proctoscopic examination was made with a small instrument with great difficulty. The lining of the rectal ampula and lower sigmoid was found injected and glazed with strings of sticky mucus. No ulcerations were noted.

Divulsion of the rectal muscle under gas anesthesia was followed within a week by the passage of normal, well-formed, large stools.

The patient has been observed from 1927 to date. She has had no further constipation. She never uses laxatives, except an occasional dose of mineral oil. Her nutrition state has improved. She has been less nervous, and in all respects has enjoyed improved health. This case represents the relief of symptoms produced by a tense hypertrophied muscle, long existing, and probably originally caused by fissures or some other actual rectal condition.

Very briefly a case with active trouble in the rectum is as follows: Mr. P. J. S., aged 51, complained of pain in the rectum, marked constipation and purgative habit, and of bleeding from the rectum. Examination revealed a sturdy man without evidence of internal disease, other than a tight hypertrophied anal sphincter with a posterior fissure which bled easily. The patient stated that he had rectal trouble as far back as 1915, and that off and on during the years between 1915 and 1922, he had much trouble with pain and hemorrhoids. In 1922 a physician operated, under local anesthesia, removing certain hemorrhoids. Although this operation relieved pain the patient continued constipated and had to use laxatives regularly. He had to keep his movements soft in order to get an evacuation. Pain had returned with discharge of small amounts of blood at intervals, and was marked when the patient came to the office. He complained of much intestinal gas and felt generally toxic. A divulsion under ethylene anesthesia was done and patient was little disturbed by the procedure. Complete relief of the rectal pain and of the symptoms of gas and constipation followed. He has been seen at intervals to date, and states that he is quite well; that he does not have to use laxative medicine.

I would like here to emphasize again the importance which should be attached to focal infection as related to the 2 conditions we have described. In patients presenting disease of focal origin, in addition to study for the usual foci, the possibility of focal infection in connection with the 2 groups described should be carefully investigated. The usual arthritis patient coming under our care has had all of the familiar foci cleared. Working in conjunction with one of the orthopedic specialists of Washington, I feel that we have accom-

plished something along these lines, in a number of cases.

I pass over possible etiologic factors in the production of "spastic colitis" as related to other protozoon infestations than that of *entameba*. There is some evidence that *Lamblia intestinalis* (*Giardia*) may produce an irritation of the mucosa of the colon. We have been unable to definitely form an opinion as to the pathogenicity of the organism. Likewise, I am not discussing the work of Stanley Dorst, of Cincinnati, in connection with allergic manifestations as related to intestinal bacteria. The work is of theoretic interest. In certain cases, I have employed his suggestion of the use of sodium ricinolate, but I have failed to observe satisfactory results. In all fairness, however, I should state that I have not given his theory and method of treatment adequate trial.

A third group which we have emphasized in a study of the etiology of "spastic colitis", and deserving of more than brief mention, is made up of those who from babyhood have been plied with chemical purgatives. There is prevalent, notably among mothers, much erroneous information concerning the bowels, for which the extensive literature concerning auto-intoxication is probably largely responsible. A druggist recently told me that there were at least 1000 patent pills and purgatives on the market. Many patients, without the slightest need of such, have established the purgative habit, and in these there is an actual chemical irritation of the mucous membrane of the bowel with the picture of a "spastic colitis". This group and the group in general may be best treated by substitution of mechanical for chemical laxatives, care as to diet and water intake and exercise. Even though a purgative habit may be of long standing it is usually easy to thus gradually cure it. Elimination of this chronic source of colonic irritation frequently leads to great improvement, not only in colonic symptoms, but in the general health level. Formerly, dietetic treatment of "spastic colitis" and spastic constipation consisted in the giving of large amounts of coarse roughage. The modern tendency, and I believe the correct one, is to give instead a non-irritating type of diet. We em-

ploy a diet from which has been eliminated all coarse roughage. The use of retention enemas of olive oil and the giving of finely ground agar, and mineral oil, we emphasize in the treatment not only of this third group, but when indicated in all cases of "spastic colitis".

In the fourth, and final, group which we think of as "spastic colitis", comes a very large classification which we are forced to catalogue as the neurasthenic. One feels rather helpless in attempting a description of this group. In general, it is composed of those entering life fundamentally inferior, and of those fundamentally normal who, through faulty environment and influence, have become nervously and psychologically different. It has always seemed to me that the first group predominated, in other words that hereditary factors were more important than environment, but in this I think our psycho-analytic friends will differ. Even in the group in which we find the organic and parasitic factors, mentioned in our first classifications, we must be on guard for psychologic factors. As in all internal medical problems, psychologic factors too often enter, and on their recognition and care often depends success or failure of therapy.

In general, no group in medicine has been so differently, and in general, so unscientifically diagnosed and treated. Too often the local manifestations of the neurotic are alone considered and treated. The colon has been irrigated, various intestinal antiseptics administered, foots of beds elevated, bandages worn, and with this little attention paid to the rather obvious nervous factors. It would seem that the neurosis should receive major attention, and that other factors of treatment should become subsidiary, and that patients should have this point of view impressed on them. The whole concept should be rationalized to the patient. In the majority, making up the milder neuroses, this is effective. The average milder neurotic person desires to get well, and will quickly seize upon and apply the lessons and explanations offered by the physician. These people should be taught that their colitis is an expression of a general condition and not a local disease.

Here may be mentioned a word of caution

concerning a more severe but small group coming under the classification of the neurotic. A certain few of such patients have, in reality, borderland psychoses, and to this group some simple explanation of the nervous situation must often be supplied by the gastro-enterologist. To these a primary diagnosis of colitis or fallen colon or what not may in reality be a crutch on which to lean, a term to use to justify to themselves and to others their inadequacies and states of misfit. In this group strict scientific honesty may possibly be side-stepped, but the physician should at least know that he is doing this. Patients of this group had best be placed in the hands of the functional neurologist. He may rationalize the situation to the patients with the severe neuroses and often accomplish much for even severely ill patients.

I commonly refer my patients with the severe neurosis to Dr. E. H. Reede, who has very kindly supplied me with the following statement concerning such cases: "In the psychoneuroses, we use the term conversion hysteria, and by it refer to many of the conditions that the internist classifies as functional disease. This term roughly separates a group in which it seems as if the psychic element has been converted into a physical factor. It suggests that a mental emotion has become a physical pantomime. But this is partly appearance and illusion. In the gastro-intestinal tract, the emotion of disgust is associated with eliminative movements. Before disgust was an emotion, the autonomic nerves reacted to repulsive food with expulsive movements. The oldest contact with the environment in terms of good or bad was through the gastro-intestinal nerves. Much of the function of the gastro-intestinal system is still an autonomic function. There is no emotion of disgust today without involvement of the old vegetative mechanism of aversion. When conscience compels its servant to endure an aversive relationship, the gastro-intestinal tract is strangely oblivious to the ethics of the situation. The more the aversive feeling is repressed from perception, the more the blind action of the colon, for example, is compulsive. And the more the sensori-motor inlet and outlet is controlled, the more does the reaction settle into

simple spasm. It sounds like nonsense, but to the psychoneurologist, functional spasm of the colon indicates a hatred in the individual against a situation that he cannot change and which he has whitewashed by repression but which the sympathetic nervous system continues to see in all its repulsive character."

THOUGHTS ON THE TREATMENT OF POLIOMYELITIS

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The recent epidemic of anterior poliomyelitis in New York City began in the second week of July with an incidence of 31 cases for that week. The first 6 months of the year had shown but 31 cases. The numbers rose rapidly until the weekly figures for August showed 404, 591 at the peak, 512, 422 and 432 cases, respectively. By the first week of September there was a falling off to 347.

The epidemic of 1916 showed the same seasonal incidence except that it began 2 weeks earlier and by the middle of August, at its peak, there were 2 weeks in which over 1200 cases were reported.

Comparing the 2 epidemics, it is worth noting that the number of cases in 1916 greatly exceeded that of 1931. There was a mortality of 25% in 1916, while in 1931 it has been but 10%. The incidence of paralysis in the recent outbreak has been but 17% for patients who had been seen in the pre-paralytic stage, while in former epidemics this number was much higher. The rate of incidence has been 1.6 per 1000 children under 15 years of age.

In explanation of the lower mortality and lower incidence of paralysis may be advanced the fact that a larger number of these patients were recognized in the pre-paralytic stage, many of whom would have almost certainly escaped diagnosis in previous epidemics. The fact that many more patients received specific treatment, and the possibility that the recent outbreak was milder than previous epidemics, should be considered but I believe the

recognition of a greater number of patients had most influence in producing the more favorable statistics of the recent epidemic. Then, too, 93% of the recent patients were under 15 and 87% under 10 years of age. This supports the feeling that our adult population has acquired a large measure of immunity to this disease. In time, this increasing immunity may relegate anterior poliomyelitis to a relatively unimportant place in epidemiology. We are all familiar with examples of unimmunized population. In 1874 an outbreak of measles swept the Fiji Islands killing 40,000 out of 150,000 inhabitants, when English sailors transmitted this disease to the natives.

Our conception of anterior poliomyelitis is undergoing revision. Though it is a disease of low incidence, even during epidemics, it is rather more widely spread than we had supposed and paralysis is part of the picture in only a relatively small percentage of cases. Our statistics, based on recognized cases, largely with paralytic manifestations, will doubtless have to be revised. I recall an experience several years ago which helped to impress this feeling upon me. I was called to see the son of a physician who had a complete paralysis of his left arm. The story of the onset was that the patient and his younger brother were taken ill with fever and other almost identical symptoms. Next morning the younger child had quite recovered, while the older child still felt ill, remained in bed and, on the second day, developed his paralysis. I felt certain that both children had the same illness and the elder was unlucky. These cases were sporadic and diagnosis was not made until the paralysis appeared.

At the present time our main interest rests with the victims of the recent outbreak and it is for them that our plans of campaign must be laid—the unfortunate few who have come through with paralytic manifestations. It is necessary to review briefly the pathologic picture of disease as it attacks the spinal cord. It has been called a *hemorrhagic myelitis*. The bulk of the inflammatory reaction is in and around the anterior-horn cells of the spinal cord, perhaps in the lymphatics surrounding those cells.

This cell damage may be accomplished as follows: (1) By direct toxic action of the virus; (2) by pressure from hemorrhage or edema; (3) by the anemia resulting from such constricting forces. If the inflammation is mild, the pressure or toxic action subsides before permanent damage is done; if, on the other hand, the inflammatory reaction is severe, these anterior-horn cells are destroyed and, in healing, the necrotic cells are replaced by a gliosis or cicatrix. In such case, the paralysis of the muscle fibers which were innervated by these dead cells is complete and permanent.

Symptoms. Of the symptoms, which are those of an acute illness, sometimes gastrointestinal, sometimes respiratory with or without stiff neck, nervous irritability and general hyperesthesia, I should like to mention one of very great importance—muscle tenderness. This varies from slight tenderness to an exquisite soreness and it is accepted as evidence of activity of the disease within the spinal cord. This symptom has frequently made the diagnosis difficult. It has led to incorrect diagnoses of acute rheumatic fever, osteomyelitis, suppurative arthritis, and even scurvy. I recall seeing, a number of years ago, a boy who was treated for 4 weeks under the diagnosis of acute rheumatic fever. He had exquisite tenderness in his shoulder muscles; so sore were they that he *would not* move his arm. When the soreness subsided, it was found that he *could not* move the arm because his deltoid, biceps and triceps muscles were paralyzed.

Spinal fluid. The spinal fluid has been considered a very definite aid to diagnosis, through showing an early increase in lymphocytes up to 1200 per cubic millimeter. I have heard a number of clinicians say that the spinal fluid cell count failed to show this rise in lymphocytes during the recent epidemic. In checking this statement, I learned that in order to be of any value, the spinal fluid count should be done at the bedside as the cells very rapidly disintegrate. The number of cells in the spinal fluid, however, furnishes no index as to severity of the infection, and is useless in prognosis.

Treatment. The treatment of anterior polio-

myelitis should properly be directed against the unfortunate paralytic sequels. In order to achieve any measure of success, it is necessary to recognize the disease early in the pre-paralytic stage. It is too soon to pass judgment on the use of convalescent serum. Its advocates probably esteem it too highly, while its opponents are unwilling to grant it any value. The fact that many patients never develop paralysis, and many with paralysis clear up entirely without the use of serum, makes it difficult to place a definite value on this treatment. It seems a very rational measure to employ, and if the serum cannot be obtained, the blood of parents or adult relatives may be used as it has been shown that such blood contains immune bodies, though in smaller amount than that from individuals who have frankly had the disease.

From the orthopedic stand-point, anterior poliomyelitis is divided into 3 stages: (1) The *acute*, which lasts from onset until the disappearance of muscle soreness, usually 4 to 6 weeks. Occasionally, a patient is seen with paralysis, but no muscle soreness, and such an instance in the acute stage should be considered as lasting the average length of time. (2) The *convalescent*, which lasts from the disappearance of muscle soreness until the end of the second year. The final point of this period marks the end of recovery of function under proper treatment. (3) The *chronic*, in which the residual paralysis and deformities are found.

The acute stage. During the acute stage the fundamental principles upon which treatment is based are rest and support for the involved muscles, as the soreness is usually acute and the patient must be made comfortable. Sedatives are employed for pain. The patient and the family can be reassured to the extent that the paralysis is then as severe as it ever will be, and that practically all involved muscles improve somewhat. The bed clothes must be kept off tender legs and arms. It is of the utmost importance to examine these patients completely, going carefully over all muscle groups of the extremities, spine and abdomen, to determine the extent of the initial damage.

The muscles most frequently involved are the anterior tibial group of the lower extrem-

ity and the deltoid muscle of the upper extremity. In cases where both deltoid muscles are paralyzed, one should remember that the lesion is very close to the respiratory center, and give a guarded prognosis. The deltoid muscle is innervated from the fifth and sixth cervicals, and the phrenic nerve is composed of elements of the third, fourth and fifth cervicals. Death, in anterior poliomyelitis, is almost invariably due to paralysis or weakness of the respiratory center. I recall a small child who came to the clinic with both deltoid muscles paralyzed, and a double abduction splint was made for her. The mother returned 2 days later to tell us the child was dead. She was well beyond the acute stage of the disease, so there had been no spread in her paralysis, but she had taken a cold, which passed rapidly into pneumonia and death followed within 24 hours. Her respiratory muscles had been weakened to a point where they lacked adequate power to cope with the extra effort required by a slight respiratory infection.

During the acute stage, patients should be kept in bed for the entire period and often much longer. The weakened or paralyzed muscles should be protected or supported in the simplest manner, which is either by plaster of Paris splints or temporary braces. It is of first importance to prevent these muscles from becoming over-stretched. If the nerve cells resume their function, and send impulses out to muscles that have been thus damaged, a great deal of functional improvement will be delayed or even lost.

For the leg cases, a plaster of Paris spica bandage is useful, with the knee straight, the foot in neutral position at 90° to the long axis of the leg, and the hip in very little, if any, abduction and no flexion.

For the upper extremity cases, with deltoid paralysis, the arm should be abducted by a plaster of Paris spica or an abduction arm splint. The hand and wrist may be supported by a cock-up splint with the fingers flexed.

A fracture board between the mattress and the springs is recommended, especially if there is paralysis of the back or belly muscles.

The chief deformities to be guarded against during this stage are: (1) foot-drop, (2) flex-

ion deformity of the knees, (3) flexion deformity at the hip, (4) adduction contracture of the shoulder, and (5) lateral curvature of the spine.

One note of warning must be sounded about treatment during this stage. *Avoid meddlesome therapeutics!* Massage or electric stimulation of the paralyzed or weakened muscles, during this active stage of the disease, will prolong the period of soreness indefinitely. Such treatment is of no benefit and may do actual harm.

Convalescent stage. This is the period in which to take stock of the situation and plan the campaign of treatment. A very high percentage of those paralyzed by anterior poliomyelitis show improvement in muscle power, many regaining completely the function that had been lost, but in these cases there is usually a little atrophy to mark the damage, and most of this improvement takes place relatively early; indeed much of it may occur during the acute stage and continues into the convalescent period. The end of these 2 years should mark the end of all expected increase in muscle power.

During this period protection of the involved muscles should be continued with braces for legs and arms; paralyzed spines, by jackets of leather or plaster of Paris; and, weak abdominal muscles, by corsets. Some patients must be kept recumbent for many months.

In regard to braces and apparatus, each case presents its own special problem. The purposes which a brace serves are (1) to prevent deformity, (2) enable a patient, who at first cannot, to walk, or to improve the gait of a patient who walks badly. A brace may mask an existing deformity but it is rarely successful in correcting it. An ankle brace, with an appropriate catch, will prevent toe-drop or calcaneus deformity. An unstable knee will need a stiff leg brace to allow the patient to walk. A patient with extensive paralysis of the hip musculature will require a brace with a pelvic band, in order to become ambulatory. Many patients will be unable to walk without crutches but these should be avoided if possible.

During this period of recovering function, physiotherapy is of the greatest importance,

and the foremost measure to be employed is, I would say, massage; which should be given gently and carefully for gradually increasing periods of time. Heat, in various forms, may be employed; serving to increase the blood supply and keep up circulation in the paralyzed muscles until such time as function is resumed by the nerve cells. Exercises, carefully supervised, are to be recommended but never to the point of fatigue, for over-exertion of a partially paralyzed muscle will delay recovery many weeks. These exercises have been thoughtfully worked out and their benefit is unquestioned in many instances, but they are, at times, converted into a fetish without regard to the needs of the patient or the object to be gained. Exercises in water, where the body is very largely supported by the water, can be accomplished in bath tubs and swimming pools to great advantage.

The residual stage. By this time no further improvement in function is to be expected, and the problem has become one of rehabilitation, by correcting such deformity as exists or preventing any increase, and by stabilization of joints whose musculature has been in part or wholly paralyzed. One may, with justification, ask why deformity is encountered at this stage if all the necessary care is provided during the convalescent period. The only answer is that many patients are improperly treated, others have received no treatment, and at times deformity occurs in spite of all precautions.

The rapid strides that bone and joint surgery has made during the past 25 years can be appreciated to the fullest extent by the number of useful operative procedures devised for the benefit of those crippled by anterior poliomyelitis. The aim has been to eliminate braces wherever possible and only those who have been intimately associated with braces for long periods of time can appreciate what this means to a cripple. Braces are expensive in initial cost and up-keep. They break unseasonably and often, leaving the wearer helpless. Children are constantly out-growing them. And, besides, there is a very definite stigma which seems to mark the wearing of braces, so that patients, as a rule, welcome a release from this form of dependency.

I shall not attempt to enumerate all the surgical procedures that have been used in the treatment of anterior poliomyelitis, but I shall comment on a few of those most widely used, and which have been amply justified by results obtained. The operations which are designed to correct deformity and stabilize joints, have been much more successful than those which have aimed to restore lost function by transferring tendons. If we pause to consider for a moment the purposes of the upper and lower extremities, we find one fundamental difference. The lower extremity is designed for support in weight bearing, and, therefore, stability must be preserved. The upper extremity is designed to serve the tactile sense and prehensile fingers, and mobility is essential. These underlying principles must guide us in any choice of operative procedures on either extremity.

Feet. For severe equinus deformity, a lengthening of the tendo Achilles is often done very effectively, but the operation may have to be repeated because of recurring deformity. Tenotomy should never be done, as it may convert an equinus into a calcaneus deformity by failure of the cut tendon ends to unite. Subcutaneous tenotomy is a relic of pre-Lister days, when all wounds suppurated and were to be avoided. It is not good surgery today.

Lateral instability, with the feet in valgus or varus deformity, may be overcome by an arthrodesis of the subastragaloid joint, which converts the os calcis, astragalus, navicular and cuboid bones into one solid bony mass, articulating with the ankle above and the cuneiforms and metatarsal bones in front. This procedure, with a number of variations in technic, is pretty uniformly successful. In a complete flail-foot, the ankle joint is at times arthrodesed in addition.

Knee. At the knee joint, flexion deformity and instability, due to paralysis of the quadriceps femoris, constitute the chief disability. Flexion deformity may be overcome by stretching in plaster of Paris splints and lengthening of the hamstring muscles. The flail knee, which requires a brace to allow walking, is a very severe handicap. Paralysis of the quadriceps does not necessarily mean a flail knee,

for this joint may be stabilized by a short calf or by a little genu recurvatum. Transplantation of the hamstring muscles into the patella has been tried to overcome instability of the knee joint. These transplanted tendons may enable the patient to extend the leg a few degrees against gravity but I have not seen a patient whose knee joint was stabilized solely by this procedure. Arthrodesis, or fusion of this joint, has been done for more than 200 patients at the New York Orthopedic Hospital, releasing them from braces and yielding results entirely satisfactory to the patients.

Hip. Flexion deformity of the hip joint produces a limp that is pathognomonic. The entire body is thrown forward, in walking, and the lumbar spine must compensate with a marked lordosis. This can be corrected by division of the hip flexors, or by transferring their origin so as to lengthen them.

A paralytic dislocation of the hip joint may be stabilized by a shelf operation which deepens the socket of the acetabulum.

For gluteal paralysis, which causes a characteristic limp with a sharp list to the affected side, no satisfactory operation has been devised, though at times complete flail-hips have been stabilized by arthrodesis of the joint. This is, however, feasible only if the knee and ankle joints are mobile.

Spine. A large amount of scoliosis, or lateral curvature of the spine, is due to anterior poliomyelitis. The resulting paralysis or weakness of the intrinsic spinal musculature creates unbalanced forces, allowing the strong muscles to out-pull their weaker or paralyzed opponents. The paralyzed side is, of course, the convex side of the curve. These spinal curves vary, from scarcely perceptible curves to hideous deformity, and present a challenge to the physician. The curves increase most rapidly during the ages of greatest growth, and stop, for the most part, when growth is finished. They can be very largely corrected if they are seen early and treatment is started at once. These patients should be kept under observation, with appropriate exercise to improve their posture. If the curve is definitely increasing, or is sufficient to constitute real deformity, it should be corrected by hinged

plaster of Paris jackets and then fixed in the corrected position by fusion of the spine. The results from this treatment have been carefully studied in a recent series of 360 patients at the New York Orthopedic Hospital, and they are far ahead of those from any other form of treatment that I have seen for scoliosis. We treat our lateral curvatures by this method at St. Luke's Hospital.

Upper extremity. Surgery of the upper extremity is mainly that of the hand, and unless the patient has a reasonably good prehensile hand, after an attack of infantile paralysis, no surgery is justified. With a good hand but a wrist drop, a fusion of the wrist joint in position of dorsiflexion, increases to a marked degree the usefulness of the hand. A flail shoulder with good biceps power and a good hand can be made useful by arthrodesis of the joint in abduction. The arm can then be raised by the scapular muscles.

Tendon transplantation. The transplantation of tendons fails, for the most part, to stabilize joints whose musculature is in part paralyzed. Often the tendons which have to be used are those of weakened muscles and it is asking too much to transfer their pull to a new axis and expect them to overcome an existing deformity. As an adjunct to a stabilizing operation, tendon transplantation is of value, by removing a deforming factor. In claw-feet, the transplantation of the long extensor tendons of the toes into the cuneiform bones of the tarsus, is an excellent procedure. There is a limited field for these operations in the treatment of the hand also.

In closing, may I be permitted to say an additional word about these patients: We can, unquestionably, be too good to the cripple. There is nothing that appeals to maudlin sentiment so much as the picture of a crippled child. Various organizations vie with one another to give them opportunities which few other children enjoy. They are carried to and from school, often long after the need has passed. Their families are apt to shower them with attention, at times to the neglect of other children. Everything is done to spoil them and make them utterly dependent. Yet, when they grow up, many of them have to go out and compete on even terms with the crowd.

I feel very strongly that their handicaps should be minimized. They should be urged to do everything possible in a normal way. They should not be segregated in special classes at school if they can walk and climb stairs. These special classes often contain mentally handicapped patients also and association with these backward children is the last thing to which a child with a purely physical handicap should be subjected. These children must not get the feeling that they are different or apart from their fellows and self-pity must not be allowed to creep into their make-up. They should early be taught to be self-reliant and self-respecting.

LIVER FUNCTION TESTS AND THEIR VALUE TO THE SURGEON

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Present day publications are so replete with articles concerning liver function tests, and so optimistic are the tabulated results, that one who is not prepared to follow these tests experimentally, and who is interested mainly in their clinical value, is apt to consider the claims made regarding their value as being enthusiastically exaggerated. In many of our smaller cities, where hospitals are not connected with teaching institutions, and the laboratory staff must concern itself, not with experimentation *per se* but with routine work requested by private practitioners, we grasp at each new addition to our already excessive, yet too often valueless, armamentarium.

With the rise in popularity of the laboratory as a basis of diagnosis, we tend to emphasize the value of the bacteriologic, hematologic and roentgenologic departments, with a resultant dulling of our clinical perceptions. Undoubtedly some recent contributions by the experimentalists, in regard to liver function, have created an exceptionally praiseworthy and brilliant addition to our meager knowledge of functional capacity; certainly this has stimulated the clinician to delve into the in-

tricacies of physiology as an aid in diagnosis; a point so well taught to us by our professors but, unfortunately, so seldom carried out in the stress of daily activities among private patients.

In the matter of liver functional tests we are presented with results of physiologic experiments which can be directly applied to diagnostic problems. There are those who scoff at all the claims laid to the value of liver function tests as an aid in differential diagnosis, just as there are those who claim too much for them, but, somewhere between these positions, one should be able to strike a sane balance. Primarily, we must follow the lead which our clinical perceptions give us, and just as radiograms, blood counts, and bacterial examinations cut down our obstacles and clear the path for a more vivid interpretation of the disease, so can these liver function tests, when properly interpreted, localize the site of the lesion or rule out a doubtful possibility in a good percentage of cases.

We must consider the fact that we are dealing with an organ of vast size, whose regenerative powers are excelled by no other vital organ, and to the functional capacity of which there has been attributed a complex array of metabolic processes. To this complex laboratory, Boyd has aptly applied the term "King of Organs", and within its confines there are evolving many processes of prime importance to the organism as a whole, a brief listing of which would include: Metabolism of carbohydrates, protein, fat and pigment; excretory, secretory and detoxifying functions; and, in relation to coagulation of blood.

While the general trend of thought leads us to believe that here is a labyrinthian complexity, the anatomic structure of the liver itself, upon which depends so much of the hepatic pathology, is singularly simple.

The histologic anatomy of the liver is well known to us all. The liver cells arranged in double layered trabeculae, allowing each cell to be bathed by blood coming to it from the portal and the general circulation, bringing to them the materials for use in its metabolic processes, as well as nourishment and fuel; the close and intimate relationship of the cells to the bile capillaries, which are to lead away

the products of excretion, secretion and pigment, as well as an elemental system of carrying off blood which has served its purpose and become burdened with its secretory and excretory substances (central vein), assuredly form a simple structural unit. The only point of possible complexity is the unit within the liver, yet which is considered extrahepatic; namely, the Kupffer cells, that part of the reticulo-endothelial system residing in the liver.

At once we are confronted by the futility of specifying any one test as a criterion of liver function as a whole, inasmuch as each test in itself is based upon one individual function and can be only a measure of that particular process. Superimposed upon this idea of multiplicity of function, we encounter the fact that $\frac{3}{4}$ of the liver may undergo destruction, and still function and regenerate. It is clear then, why one single phase of liver function may vary from day to day, if rapid regeneration is taking place. This last point must be considered by the occasional user of liver function tests, for he, more than anyone else, may encounter wide variations in his few tests and so be prone to throw the entire matter into mental discard.

Although the list of liver function tests is a formidable one, today we can definitely dispose of many of them, and resort to those which, in the various clinics, have given most constant results. It is apparent that to employ a test of every supposed function of the liver would be superfluous, and extremely annoying and distasteful to the patient. Hence, we select the tests of those liver functions which have given us the best experimental results. Chief among these we find: ability to excrete foreign dyes (serum retention, cholecystography); pigment metabolism (Van den Bergh, icteric index, urobilinogen); carbohydrate metabolism (galactose, levulose, dextrose, tolerance).

The study of liver functions and tests to determine their impairment is of utmost importance to the surgeon, inasmuch as in the purely surgical consideration of the gall-bladder and extrahepatic bile ducts, pathology is frequently linked up with liver disease. The intimate relationship between hepatitis and cholecystitis has been discussed by Bien and

Baker and has been the subject of a great number of publications. So that today, surgery of the gall-bladder includes, more and more, thorough exploration of the larger bile ducts and drainage of them because of the associated hepatitis. A study of this pathology shows clearly enough that surgery of the gall-bladder must include an investigation of liver function.

I shall confine myself to a more complete discussion of the tests which are routine in our service and mention, only briefly, the various other tests and the reasons for our temporarily laying them aside.

Bile pigment is wholly an excretory product and hemoglobin is the mother substance. Prior to publication of Aschoff's views, in 1913, crystallizing the reticulo-endothelial system, and the production of bilirubin in the cells of that system, the common conception was that the formation of bile pigment was entirely hepatic, and that there could be no jaundice without the liver. Although Virchow, in 1847, following his observation of discoloration about hematomas, proved that hematoidin was formed from hemoglobin, and Jaffee, in 1862, presented evidence that hematoidin and bilirubin are identical, and so struck at the possibility of an extrahepatic formation of bilirubin, it remained for such able investigators as McNee, Mann, Bollman and Magath, Whipple and Hooper, to give us our present day conception of the formation of bilirubin in the cells of the reticulo-endothelial system.

From the destroyed red blood corpuscles there is derived that part of the hemoglobin molecule which can no longer be utilized, and from this bilirubin is formed; and, experimentally, injections of hemoglobin cause an increase in bilirubin formation locally. This is in accordance with our understanding of hemolytic icterus, where there is a great deal of blood destruction, the excess hemoglobin being thus available for an increased amount of bilirubin formation by the phagocytic reticulo-endothelial cells.

The Kupffer cells in the liver are part of the reticulo-endothelial system and thus are considered to be extrahepatic. The remaining cells of that system are found particularly in the bone marrow, spleen, lymph glands, as

well as constituting the interstitial cells of the testes, the reticular cells of the thymus, and the capillary lining of the adrenals. According to Boyd, these cells in man are mainly collected in the spleen, bone marrow and liver. Haldeman, who has devised a method (Berlin blue) of identifying iron-containing pigment, contends that bilirubin is chiefly formed in the bone marrow; whereas, the liver, spleen and lymph nodes play a lesser rôle in its production. This observation is borne out by Mann, who, by use of the spectrophotometer, found that a great proportion of the bilirubin is formed in the bone marrow. Mann and his associates conducted a series of experiments which conclusively proved the extrahepatic formation of bilirubin; ligating the common bile duct of dogs, thereby causing an experimental jaundice, there was a constant increase in the bilirubin content of the blood. Following this definite depth of icterus, the liver was resected from these dogs, and still the bilirubinemia continued to increase. Mann, however, noted a difference in the character of the bilirubin which caused the increase in the blood before and after removal of the liver, and so, while the production of bilirubin is definitely extrahepatic, it must be conveyed to the liver for excretion, and while passing through the liver cells, its molecular constitution is altered. This is the basis for our Van den Bergh reaction, where the altered bilirubin causes an immediate, instead of a delayed reaction. Evidence has been presented to show that the bilirubin in the blood prior to its excretion by the liver is a colloid, while that which is excreted by the liver cell into the bile tubules is a crystalloid. Recently, however, Snider and Reinold presented a series of cases showing the relationship between the icteric index and the direct Van den Bergh reaction. Their results indicate that the immediate direct type of the Van den Bergh reaction was associated with a high icteric index, and the delayed reaction with a correspondingly low icteric index. They conclude that the type of Van den Bergh reaction observed in serum depends upon the concentration of bilirubin.

Pathogenesis of jaundice. While the jaundice problem is as old as recorded medicine itself, even in the light of our newer concep-

tions of physiology and pathology we find ourselves merely laying the foundation for what appears to be a solving of this interesting and often confusing problem. Clinical medicine recognizes 3 kinds of jaundice—hemolytic, toxic or infectious, and obstructive. Rich prefers to call the toxic jaundice, *retention* jaundice, whereas the obstructive type is labelled *regurgitation* jaundice. Jaundice is produced mainly when 2 conditions prevail: (1) When the bilirubin is produced in the blood at a greater rate (due to increased blood destruction) than can be absorbed by the liver. According to Rich, this rarely occurs. (2) When the excretory mechanism of the liver is disturbed; the disturbance residing either in the liver cell itself or in the biliary passages.

Consider then, a state wherein bilirubin is normally produced, and is circulating in the blood but cannot satisfactorily be removed by the liver cells, because of a degenerative process in the cells. Hence, the bilirubin is not removed from the blood, the amount of retention varying with the degree of liver impairment. This, according to Rich, is the *retention* type of jaundice. Such a condition will give the delayed direct Van den Bergh, and is supposed to have a large amount of colloid bilirubin in the blood. Then consider, also, the state wherein the liver cell function and bilirubin production are normal, so that the pigment is removed from the blood stream by the liver cells, and altered in its passage through the hepatic substance but, due to an obstructive lesion, the bilirubin cannot pass out into the intestinal tract, thereby causing a damming back of the bile into the bile tubules, with a subsequent increase in pressure in those passages and, ultimately their rupture. This results in Rich's *regurgitation* type of jaundice and pre-supposes a large amount of crystalloid bilirubin in the blood.

We have, moreover, a third state, wherein the liver cells are sick, this sickness ranging from a cloudy swelling as in acute infections, to profound destruction, as in acute yellow atrophy. Superimposed on this is a cholangitis of the smaller bile ducts. In such a condition, what bile may have gotten through the liver, due to the presence of some functioning

liver cells, is obstructed by the cholangitis. This results in a biphasic reaction.

The Van den Bergh test, then, is a delicate test for bilirubin in the blood serum. It is a diazo-reaction, wherein addition of the reagent to the blood forms azobilirubin and a bluish red color is observed. If the color appears in 30 seconds, it is an immediate-direct Van den Bergh. If the reaction is not immediate, but appears within 5 minutes, it is a delayed-direct Van den Bergh. If neither occurs, and upon the addition of alcohol a pink color results, it is called an indirect Van den Bergh.

Retention jaundice occurs in: (1) anoxemia, due to anemia and passive congestion of the liver; (2) acute febrile diseases, causing a depression of liver function; (3) jaundice of the new-born, where the liver cell is immature; (4) undetermined causes, as in Hanot's cirrhosis. Regurgitation jaundice occurs in lesions of the extrahepatic biliary tract. It is seen in strictures of the common hepatic or common bile ducts, carcinoma of the head of the pancreas, calculi in and malignancy of the ducts themselves, and pressure from tumors outside the passages.

The icteric index is a quantitative test of bilirubinemia and does not differentiate the types of jaundice, 2-6 being normal, 6-15 latent jaundice, and above 15, visible icterus.

The Van den Bergh quantitatively is not surpassed by the icteric index because the latter depends upon a comparison of color between the blood serum and a standard bichromate solution 1:10,000, and is apt to have errors creep in, especially in diabetics where other substances may discolor the serum. Under ordinary circumstances, however, it is a practical and simple method, being most valuable in detecting the period of latent jaundice and the progress of the disease, an essential point to the surgeon, who has learned from experience that the most favorable time for operation is when the serum pigment has reached a constant level.

Qualitatively, the Van den Bergh differentiates the 2 types of bilirubin, for certainly there is a difference in the bilirubin of obstructive and hemolytic jaundice, be it some alteration in the chemical constitution, or a union with some albuminous substances, or a lipid

combination, or purely a physical difference, i. e., a question of concentration. But the difference is apparently there, and we do have a basis for distinguishing the various classes of jaundice.

Killian and Klemperer have suggested a method for distinguishing between obstructive and non-obstructive icterus, based on whether or not the jaundice is due to bilirubin combined with bile salts, or bilirubin alone. Bile salts, we know, are purely a hepatic product, and a combination of bilirubin with bile salts can result only when the bilirubin has passed through the liver cell.

Urobilogen. In this sequence of pigment metabolism we now arrive at the question of what becomes of the bilirubin after its excretion into the intestinal tract. Definite evidence is presented by McMaster and Elman and by Wallace and Diamond, showing that this pigment is converted into urobilin and urobilogen following the production of hydrobilirubin by oxidation in the intestinal tract, and that part of the urobilogen which is not excreted with the feces as stercobilin is reabsorbed into the portal circulation and transported back to the liver where it is reconverted into bilirubin, completing the enterohepatic circulation of bile pigments. It readily follows, then, that where there is parenchymal liver damage, the urobilogen will not be accepted by the liver, and so be shunted off into the general circulation, and since the kidney threshold for urobilogen is very low, it is readily excreted in the urine. Less liver damage is necessary to cause urobilinuria than bilirubinemia, and hence it is a more delicate test for liver function. However, its great value lies in the differentiation of complete obstructive lesions from hepatic diseases, causing jaundice. With complete obstruction, no bilirubin can gain entrance into the intestinal tract (except possibly by absorption from the mucosa in very deeply jaundiced patients, and this amount is exceedingly small), hence no urobilin can be formed. In the other types of diseases, non-obstructive, the bilirubin finds its way into the duodenum and urobilogen is formed, but due to liver destruction the pigment is not removed from the blood by the liver cells, and appears in the urine in increased amounts.

The bilirubin clearance test was originally presented by Von Bergman. Harrop and Barron, using bilirubin obtained from the Eastman Kodak Co., in the amount of 7 mgm. per kilogram of body weight, and dissolved in 15 c.c. of 0.5 M Na_2CO_3 , obtained blood determinations at 5 minutes, $\frac{1}{2}$, 2, and 4 hours, on a series of cases. Normally, all the pigment is removed by the liver, which specifically excretes it, within 4 hours, Kammer and the authors having determined its non-excretion by the kidneys. If any is present at that time it is an indication of impairment of the hepatic power to remove it from the blood stream. It has been advocated as a test of hepatic insufficiency in those cases where liver impairment is so slight as to give normal findings with the Van den Bergh, sugar tolerance, and dye tests. Hence, it is presented as a delicate test of liver function. The bilirubin injected results in an immediate direct Van den Bergh upon injection, which is changed to an indirect reaction upon its absorption into the blood stream, and thus its properties are similar to those of bilirubin produced in vitro.

Theoretically this is an ideal test, but due to fact that it can be dissolved only in an alkaline solution, which is extremely irritant to the local tissues, this test is not in popular use, and until a more suitable solvent can be used it can be of no practical value.

Carbohydrate metabolism is one of the major functions long ascribed to the liver. It is essentially a conversion of the monosaccharides into glycogen and the reversion of the stored glycogen into dextrose for use elsewhere. Although the skeletal and heart muscles also store glycogen, Simpson and MacLeod claim that the liver glycogen is the prime factor in the maintenance of blood sugar. These authors state that "muscle glycogen is converted after mobilization into lactic acid, and the latter must then be synthesized into liver glycogen before it can supply the blood with sugar".

This process was described at an earlier date by Von Noorden and Embden, who named it the "chemical carbohydrate cycle", wherein the stored liver glycogen is converted into glucose, which finds its way to the muscles, where it is reconverted into glycogen. When there is

a carbohydrate demand by the body the muscle glycogen yields lactic acid, which is conveyed back to the liver to be converted again into glycogen. Any disturbance in this glyco-genic factor of the liver should cause a corresponding disturbance in the blood sugar, keeping in mind, however, the extrahepatic carbohydrate mechanism manifesting itself chiefly in the muscles.

Furthermore, it can readily be seen that livers which have a greater part of their substance saturated with bile, must have little room left for glycogen storage. Forsgren showed experimentally that the percentage of glycogen in the liver varies inversely as the bile increases in its occupancy of liver substance. Hence, in cases of duct obstruction where the bile is damming back into the liver, the glycogen content of that organ is greatly decreased.

Various procedures have been developed for testing liver function, based upon this sugar metabolism. Three of these have received considerable attention recently and are in use at several clinics, and we are employing 2 of these, the galactose and levulose tolerance tests.

Levulose tolerance test. In 1901, Strauss attempted to clarify the confusion caused by the use of various sugars to test liver function, by stating that glucose and galactose could be converted into glycogen outside of the liver, but that the conversion of levulose into glycogen occurred almost entirely in the liver. Therefore, physiologically, levulose is the best sugar to use for testing liver function. Discrepancies, however, crept in because of a lack of uniformity regarding the normal levulose tolerance. Jolliffe, of the Bellevue Department of Physiology, conducted a series of 81 tests, including normal medical students and convalescing patients, and computed a normal blood sugar curve for levulose. In no case did the blood sugar reading rise above 121, and that in but one instance, while still another went to 117. The rest were under 115 mgm. He employed the regular technic of giving 30 to 50 gm. levulose after a 12-15 hr. fast, and blood sugar readings were taken at fasting time, $\frac{1}{2}$ hr., 1 hr., and 2 hours. Hepatic disease manifests itself by a rise which

may go to 170 or 180, the decline being less rapid, since in those cases tolerance to intravenously administered levulose is markedly reduced. One drawback to the use of levulose is its rather prohibitive cost.

Galactose tolerance test. In 1906, Bauer, of Vienna, introduced galactose as a test for the carbohydrate metabolism in the liver. The technic used is the one advocated by Shay, namely: after an all night fast and before breakfast, 40 gm. purified galactose are ingested. Samples of urine are collected every hour for 5 hours. The patient can have as much water during this period as desired. The specimen collected at the ingestion of the sugar is discarded. Each other sample is tested qualitatively for sugar and the positive specimens are pooled, the quantity noted, and a quantitative determination by the Benedict method is made. The total amount of galactose excreted is computed. In diabetics the dextrose is separated from the galactose by yeast fermentation.

* Galactose qualifies as a preferable sugar for testing liver function in that it is readily absorbed from the gastro-intestinal tract, with little disturbance; its normal tolerance is known (Bauer, 37-40 gm.); it is convertible to glycogen; and is almost specifically absorbed by the liver, as demonstrated by Mann's hepatectomized dogs. The experiments of Shay verify the fact that the tissues utilize galactose to a very slight degree without the aid of the liver. Shay concludes that galactose is the sugar of preference inasmuch as it is excreted in the urine regardless of the state of renal excretory mechanism or the activity of the endocrine glands.

Undoubtedly this test is more convenient to the patient and is preferable at this hospital. Any excretion above 3 gm. is considered abnormal and indicative of marked liver impairment. For here, as in all sugar tests, we must realize that, due to the great regenera-

* When the hepatectomized dogs are injected with glucose or dextrose, the recovery from the hypoglycemic state is complete, but when galactose is used the beneficial action was slight, showing that the liver is essential for utilization by the body tissues of galactose. This is contrary to the findings of Strauss, who preferred levulose to galactose.

tive power of the liver, chronic and slow degenerative processes will allow adequate regeneration of sufficient functioning liver tissue to maintain the carbohydrate metabolism. A positive test, then, assures us of advanced liver damage, unless the impairment is of an acute nature, where regeneration has not occurred.

In galactose, especially, any amount of the sugar which is not taken up by the liver will be excreted in the urine, since there is said to be no kidney threshold for it, and its measurement is comparatively simple. Our best results have come with this method of measuring the carbohydrate metabolism of the liver. There have been cases, however, where only by repeated tests have we been able to obtain significant readings. While it may be true that this test applies best to a group of cases, our individual cases have shown reports corresponding to the findings in the other function tests.

The modified sugar tolerance test, as used by Althaus and Keer, consists of an all night fast followed by an insulin injection of 20 u., and in 20 minutes 50 gm. dextrose in 500 c.c. water and then 1000 c.c. water. Readings taken at 0— $\frac{1}{2}$ —1—2—3 hours. The curves obtained show that hepatic disease may cause an initial hypo- or hyper-glycemia, but all cases have an ultimate and constantly marked hypoglycemia in 3 hours. A reading under 70 mg. at 3 hr., is considered abnormal. At the University of California they prefer this test to the others, using it in conjunction with the rose-bengal dye test, and the reports which they have given us are very favorable.

To sum up, these tests are always positive in acute catarrhal jaundice, chemical (salvarsan) poisoning, acute yellow atrophy and terminal cirrhosis; frequently positive in acute febrile jaundice, chronic passive congestion; and occasionally positive in carcinoma of the liver and severe cholangitis. We must bear in mind that the limitations of these tests are due to the fact that the pancreas and the muscles also play a part in carbohydrate metabolism, although in a lesser rôle than the liver. Hence, the test may give variable results. The cardinal value of this test is in controlling the antisyphilitic arsenic treatment, determining

the degree of residual disorder after an acute liver process and as a possible aid in determining suspected liver metastasis in rectal carcinoma.

Relationship of liver to blood coagulability. Liver extirpation is occasionally followed by a rapid loss of fibrinogen. The liver has a definite maintenance of fibrinogen, but its exact mechanism is poorly understood. In Mann's hepatectomized dogs the fibrinogen remained constant. And so, extrahepatic factors playing an important rôle in fibrinogen control, a test for fibrinogen would be too inconstant for practical value in liver disease. Coagulation time has been advised as an indication of liver impairment, on the presumption that the chief factors in delayed clotting time, in jaundice with hepatic injury, are the increased bile salt content of the blood and the decreased amount of fibrinogen. The bile salts in jaundice are believed to couple with the available calcium which is a link in the clotting system. Recently, Gunther and Greenberg, of the University of California, finding a new direct method to more accurately determine the blood calcium, presented evidence to show that there is no deficiency in the diffusible calcium of the blood serum, and it is this diffusible calcium which is available for clotting. The non-diffusible calcium may be low as a result of the fall in serum albumin. They conclude that factors other than the amount of available calcium must be sought for to explain the abnormal bleeding phenomenon as seen in jaundiced patients. Frequent readings of the blood coagulation time in jaundiced patients are made to determine the operative risk. In conjunction with this we have followed the suggestion of Linton to use the sedimentation rate of the blood as a specific means of detecting a hemorrhagic tendency in patients with obstructive jaundice. When the sedimentation rate is slow, postoperative hemorrhage is unlikely, while a rapid rate in the absence of fever portends postoperative bleeding. The findings of Linton have been borne out by us in the few cases where the test was applied, and at present blood transfusions are given pre-operatively when the sedimentation rate is rapid.

Protein metabolism of the liver is an ex-

ceedingly complex process, but evidence points to the conversion of amino-acids, ammonia, and other nitrogenous material into the urea in the liver. Hepatectomized dogs show a decrease in blood urea, followed by a diminution of urea in the tissues and urine, together with an accumulation of amino-acids in the blood, tissues and urine. This is the basis for the nitrogen partition readings. Usually, urea takes up 40 to 60% of the non-protein-nitrogen and when it falls below 40%, particularly if the amino-acid and ammonia nitrogen is increased, there is probable liver derangement.

Practically, we need severe liver destruction to give changes in the nitrogen excretion, due to the fact that other organs also take part in nitrogen metabolism. The renal excretory mechanism must also be considered, since increased amounts of urea are present in the blood of patients with kidney function impairment.

Blood and urea non-protein-nitrogen determinations have been of some value, for with positive results we again can be assured of advanced liver disease.

Cohen and Levin published a test for the disturbed protein metabolism. Essentially it consists of feeding a weighed protein meal (1 gm. per kilogram of body weight) and determining the blood urea curve, which is represented by an increase of 50% or more above the fasting level in the normal individual, whereas in liver disease, the rise is lacking. The nitrogen partition is more valuable as a direct test of liver function, inasmuch as a decrease in blood urea must be compared to an increase of amino-acids and ammonia, if direct application to liver metabolism is to be observed.

Detoxifying power of liver. The liver shows a protective mechanism against circulating poisons. Chloroform and phosphorus have a particular tendency to cause marked physiologic changes in the liver and little change elsewhere. Many insoluble poisons can be obtained in the liver after injection into the circulation. The liverless dogs of Mann showed a greatly reduced resistance to injected amino-acids and ammonia. Also a decreased tolerance for phenol and benzoic acid.

Judd has advanced the idea that hepatitis

as seen at the operating table may be a result of the protection which the liver has given to the body from circulating infectious or toxic products.

Widal's hemoclastic shock test. Usually we notice a slight rise in the blood pressure and slight leukocytosis following a meal. Widal described a group of cases in which the reverse was true: lower blood pressure and leukopenia. This, he claimed, was due to failure of the liver to remove and store up certain peptones and albumoses, which pass into the general circulation, resulting in an anaphylactic shock which caused this fall in blood pressure and blood count. And so, this hemoclastic shock is really a test of liver function; 200 c.c. of milk being ingested and the leukopenia measured. Other investigators have not obtained the findings of Widal.

Secretory and excretory functions. While our knowledge concerning these functions is still far from complete, Whipple and Smythe, in 1922, unquestionably showed that the liver cells secrete bile acids and salts, and that these salts are of importance in splitting fat into fatty acids and glycerin, by virtue of their accelerating action on lipase. Investigation of this function is handicapped by the lack of a good practical method for estimating the bile acids. At present the Pettenkofer reaction alone is used.

Cholesterol and bilirubin are products of excretion. About cholesterol we know little except to say that its function must be an important one because of its extensive distribution throughout the entire body. Mann found no demonstrable change in the blood cholesterol following liver extirpation, which is contrary to the findings of Killian and Klemperer, who enlisted the cholesterol content of the blood in distinguishing the varieties of jaundice. They report the content as increased in the obstructive, unchanged in the infectious, and decreased in the hemolytic types of jaundice. These findings have not been so concise in our work, but are of sufficient constancy to warrant a continuance of the procedure.

Dye Excretion in the Liver. When Abel and Rountree presented, in 1909, the kidney

functional test of phenolsulphonephthalein, which was based upon the ability of this dye to be eliminated through the kidneys without undergoing any chemical change, they marked the beginning of a long series of dye tests for functional capacity of excreting organs. In 1912, Rountree found that specific excretion of the dye phenoltetrachlorophthalein through the bile made possible a dye test of hepatic function, the value of which was established when Rosenthal determined the time required to eliminate a set amount of the dye. This is the very principle upon which are based all the dye tests for liver function—the time required for the liver to rid the blood stream of the intravenously injected dye.

Probably due to a lack of technic, but more likely because a definite dosage and technic had not yet been established, several marked toxic reactions resulted, and in an attempt to obtain a less toxic dye, which would also fulfill the requisites of specific excretion by the liver, Rosenthal and White advanced the use of bromsulphalein (phenoltetrabromphthalein sodium sulphonate) as an ideal test for liver function. The other dyes suggested are: phenoltetra-iodophthalein, utilized by Graham and his associates; the rose-bengal (duodotetrachlorfluorescein) test advocated by Delprat; azorubin test, introduced by Tada and Nahashimia; the indigo-carmin test of Einhorn and Laporte.

The bromsulphalein and phenoltetra-iodophthalein tests have been found to give the most constant results with least toxic effects by many workers, and those are the dyes which we are utilizing here, with a marked preference for the iodophthalein for reasons to be explained.

Normally, the liver can remove the injected dye from the blood within 30 minutes. Any retention of the dye at the end of this period is a manifestation of liver disease. The amount of retention, moreover, is directly proportional to the extent of the liver pathology (although some deny this and claim it is only a test of liver permeability) and it is in this respect that the dye test has its greatest value, inasmuch as it can determine the surgical risk of a patient. It has been Graham's exper-

ience that patients having 50% dye retention at the end of $\frac{1}{2}$ hour, and upon whom operative procedures are resorted to, are the most likely victims of hemorrhage or liver shock. He definitely states, that where there prevails such a high retention, operation should be delayed until the patient is carefully prepared by glucose in large doses and blood transfusion, so as to increase liver resistance, and to limit the operation to the least amount of surgery possible under the circumstances.

Laird and Wilkerson have gone further, and advocate common duct drainage through the cystic duct following cholecystectomy when the preoperative dye retention is high.

Graham also stresses the value of the dyes in differentiating the jaundice of common duct obstruction due to calculi from obstruction due to malignancy. The dye retention is more apt to be very high in cases of stone obstruction, owing to the sudden damming back of bile with resulting liver damage, allowing an insufficient period of time for regeneration, whereas, the retention due to carcinomatous obstruction is low until very late in the course of the disease, inasmuch as the blocking off of the bile is more gradual, permitting the liver to regenerate.

The phenoltetra-iodophthalein test is the procedure of choice in our hospital. While it offers no advantages over bromsulphalein as a liver function test, the fact that it can be combined with cholecystography is sufficient for the preference. From the vast amount of literature published of late bearing upon the relationship of cholecystitis and hepatitis, and from personal observation, we cannot help but realize how frequently the two conditions are associated. Inasmuch as it has been advanced by several authorities that failure of gall-bladder surgery is due, to a great extent, to untreated associated liver pathology, it is essential to know preoperatively what the functional capacity of that organ is, so that drainage of the biliary tract may be resorted to when gross examination of the liver reveals no abnormalities. Hence the contention of Laird and Wilkerson, that they drain the common duct in all cases where the dye retention is above 45% in $\frac{1}{2}$ hour.

That one injection will give us invaluable information concerning the functions of the liver and gall-bladder, seems a point of utmost value to surgeon and clinician alike. A good number of the functional tests are an inconvenience to the patient in that they require fasting and intravenous injections. Granting for the moment, that intravenous injection of the dye for cholecystography offers better results than the oral ingestion, we then are able to eliminate an extra period of fasting and an extra intravenous injection, by combining two very valuable and desirable tests into one. Phenoltetraiodophthalein, as used for cholecystography, required a greater amount of the dye for injection than is used in the other dye tests, and this allows for a greater value of a dye test, inasmuch as smaller amounts of tissue damage can be detected by this greater burden imposed upon the organ, which is still within the safe limits of dosage.

The average dye retention percentage in various diseases involving the liver as reported by several investigators is as follows:

Catarrhal jaundice and arsphenamine poisoning, most marked being as high as 90% in $\frac{1}{2}$ hour.

Cirrhosis of the liver, 5 to 15% in 1 hour.

Carcinoma of the liver, 10 to 20% in $\frac{1}{2}$ hour, 15% in 1 hour.

Hepatitis in gall-bladder disease; the percentage depends upon the extent of the pathology in the liver.

(a) Cholecystitis with jaundice, 55% in $\frac{1}{2}$ hour.

(b) Cholecystitis without jaundice, 27% in $\frac{1}{2}$ hour.

Duodenal ulcer and cholecystitis, 58% in $\frac{1}{2}$ hour.

Cholecystography, developed by Graham and Cole and presented in 1924, stands today as one of our greatest achievements in gall-bladder work. This procedure is not merely a perfected gall-bladder x-ray method, but is also an index of gall-bladder function. It is not within the province of this paper to discuss the various conceptions of gall-bladder function, except to say that, despite the findings of Bela Hapler and J. E. Sweet, who

contend that the gall-bladder does not empty itself through the cystic duct, and some of their arguments are sound, the clinical and experimental evidence seems to lean toward the gall-bladder passing its contents into the cystic duct, except those substances which are absorbed through its mucous membrane. This emptying is not merely a muscular contraction, but as shown by Copher, Glover, Kodama, and Graham, in 1926, other factors such as elastic recoil, dilution with new bile and mucin from the gall-bladder wall, and variations in intra-abdominal pressure during respiration, play an important part.

It is only through such an explanation, that is, the utilization of the cystic duct as a means of exit for gall-bladder contents, that we can account for the emptying of the gall-bladder after the ingestion of a fatty meal.

Cholecystography presents us with information in a negative and positive sense. When there is failure to visualize the gall-bladder after intravenous injection of the dye, we can be readily certain of the presence of pathology which is preventing the gall-bladder from accepting and concentrating the dye. Calculi filling up the viscus or blocking the extra-hepatic ducts, in which case the dye is prevented from entering the organ, and a loss of the absorptive power of the gall-bladder wall, which will inhibit a concentration of the dye, are the main factors which cause a non-visualization of the gall-bladder. This phenomenon is also accomplished in pregnancy (late). Good visualization of the gall-bladder permits us to see definite pathology by studying the shape, position, size, and location of the gall-bladder, as well as its functional response to intestinal stimulation (fatty meal ingestion). The negative shadows of cholesterol stones are also in evidence here. The question as to whether or not liver damage with a subsequent dye retention in the blood is sufficient to interfere with good visualization of the gall-bladder is answered by Graham, who presents the evidence obtained experimentally by Fried and Witaker, with the conclusion that "an unusually large amount of hepatic injury is necessary, before the density of the cholecystograms become affected."

Concerning the reactions occurring with intravenous injection of phenoltetra-iodophthalein, Graham reports the results of 1742 cases: In 1172 cases, 67.5%, there were no reactions at all; 20.5% gave a 1° reaction, characterized by slight headache, dizziness, slight nausea or chilliness; 12% gave a 2° reaction, manifested by severe nausea, chills, vomiting, diarrhea, abdominal and back pains, fever, and urticaria. Our series of cases in which the Graham method of administration with the modification suggested by Leist was adopted, revealed a very small percentage of reactions. As we use it here, an intravenous set is put up with 300 c.c. of warm saline in the glass receptacle. The rubber tube is interrupted by 2 glass connecting tubes; 100 c.c. are allowed to flow into the vein; after which, according to the suggestion of Leist, the concentrated solution of phenoltetra-iodophthalein is slowly injected into the rubber tubing below the first glass connecting tube. The solution is injected with such rapidity as will allow the first glass connecting tube (6 in. away from the needle) to remain free of the dye. Usually about 50 to 100 c.c. of saline remains after the injection of the dye, and this is allowed to run into the vein, washing out the dye from the local vein. This is further accomplished in the Graham technic, by having the patient raise the arm above his head for a minute at the completion of the saline injection. The same precautions prevail in this gravitation method of injection, as apply to any type of intravenous injection; sterility, etc.

We must not lose sight of the fact that reactions also occur with the oral administration of the dye for cholecystography. By this method 5 gm. of the dye are used, which is twice the intravenous dosage. The possibility of nonabsorption is eliminated by the intravenous route. The conscientious roentgenologist, when he is confronted with a non-visualization of the gall-bladder following the oral administration of the dye, is hesitant to diagnose a pathologic gall-bladder offhand, and usually repeats the procedure to make certain that the dye was absorbed.

Just a word concerning the 2 types of dye

used for cholecystography, the phenoltetra-iodophthalein and the tetra-iodophenolphthalein. They are isomers. Inasmuch as the deciding factor in our use of this dye in preference to bromsulphalein, is the opportunity offered to combine a liver function test with cholecystography, we must use phenoltetra-iodophthalein, since that *colors* the blood serum, whereas the tetra-iodophenolphthalein leaves it undisturbed. In addition, 1 gm. less of the dye is necessary in the case of the phenoltetra-iodophthalein, and so is less likely, because of its smaller dosage, to cause reaction. I wish to state that we feel less concerned about serious reactions here, for a close analysis of the reported deaths following the injection of the dye reveals some branch of technic to be responsible, as in the case of C. P. B. Huddy, of England, where twice the amount of the dye considered safe was used, and in Beyries' case, where an intravenous injection followed an oral administration within 24 hours, as well as in Graham's case, where they were attempting to use old sealed ampules of concentrated dyes for commercial convenience, and upon injecting a 7 month old sample, the patient succumbed.

With the present gravitation method and the availability of the experience of E. A. Graham in 15,000 cases, our technic has eliminated unfortunate sequels to such an extent that we rarely see them.

Advanced myocardial disease with low blood pressure readings, appears to be the only contraindication, and even in those cases the dye can be administered intravenously after an initial injection of adrenalin.

Although many workers have reported excellent results with oral cholecystography, our efforts have shown that it is less efficacious than the intravenous route, so far as the recording plates are concerned. Then, if one need not concern himself too greatly about reactions, and the advantages of avoiding a vena-puncture are negated by the requirements of a liver function test, no valid reason is left why the intravenous route should not be the method of choice, reserving the oral administration for those cases where the veins are difficult to find.

In seeking about for some routine which would enable us to obtain as many of these tests as possible with a minimum amount of inconvenience to the patient, we have devised a procedure which is similar to the one suggested by Rubenstone and Tuft.

Following a light supper and an all night fast, the patient is prepared at 7 a. m. for vena-puncture, having within reach 50 gm. levulose or galactose (depending upon which test we are to use), $2\frac{1}{2}$ gm. of phenoltetra-iodophthalein dissolved in 30 c.c. sterilized distilled water (less if patient's weight is under 140 lb.), 4 dry sterile syringes, and several test tubes, half of which contain citrate or oxalate; 20 c.c. blood are withdrawn and into each of 2 test tubes (1 oxalated), 10 c.c. are inserted, allowing for a small amount of blood injected into a sedimentation tube. From the oxalated blood the fasting blood sugar, as well as the nitrogen partition, can be estimated. The unoxalated blood produces the serum from which the icteric index, Van den Bergh and Wassermann tests can be determined. The intravenous infusion of 300 c.c. warm saline by the gravity method is now started and the dye taken up in a syringe and injected into the vein via the rubber tube as previously described. The levulose mixture is now ingested. In $\frac{1}{2}$ hour the opposite vein is utilized for a vena-puncture, at which time an oxalated and a plain test tube are employed for collecting the blood, in order to determine the dye retention and the blood sugar reading at $\frac{1}{2}$ hour. This is repeated in 1 hour. The 2 hour collection is for the blood sugar only. No food is allowed, but water may be had in limited amounts after this 2 hour period. At 5 p. m. the first film is taken and followed by exposures at 1 hr. intervals until 8 p. m. when the fatty meal is given and followed by x-rays. This procedure makes the day a full one for the patient, who is grateful, however, for concentrating it all into one day. It also requires coöperation with the x-ray technician, which fortunately we have.

We have found 12 hr. exposures the best

although we allow 13 hr. to elapse before giving a fatty meal.

The tests found to be most practical, and which we are using at this hospital, are the Van den Bergh and icteric index, phenoltetra-iodophthalein by intravenous injection for liver function and cholecystography in conjunction with a gastro-intestinal roentgenologic series, galactose and levulose tolerance tests, urobilogen test in urine, coagulation time, sedimentation time, blood urea and non-protein-nitrogen determinations.

Repeated tests are carried out at various stages of the treatment, which, when surgical, consists mainly in preparing the patient for operation by administering large amounts of glucose intravenously and orally, calcium chloride intravenously, and digitalis (to stimulate the heart which is affected by the toxic state of jaundice and by the hypoglycemia of liver disease), and, when necessary, blood transfusions.

We can no longer doubt the extreme value of the liver function tests to the surgeon. While many of our newer surgical procedures and emphasis of pre- and post-operative care have worked wonders in reducing our mortality in gall-bladder surgery, one must go further to explain such a sudden fall in this specific mortality rate as reported by the surgical department of Barnes Hospital, in St. Louis. Graham reports that from 1924 to 1927 cholecystectomy resulted in a death rate of 6%; whereas, from 1927 to 1930, 0.4% marks the mortality rate. This drop is attributed to the reliance on the excretion of phenoltetra-iodophthalein as a gage of operability of the patient, a procedure not in use before 1927.

In conclusion, I would like to quote, to those who have felt called upon to destructively criticize the impracticability of the experimental work of this past decade, the words of Dr. Charles H. Mayo: "It is not possible to plan a practical research, that is, a research with the object of solving some immediate diagnostic or therapeutic problem. Research has to follow its own way, whether or not the way has an immediate practical application."

FIFTIETH ANNUAL REPORT

Society for Relief of Widows and Orphans of Medical Men of New Jersey

William D. Miningham, M.D., Secretary

The Board of Trustees takes great pleasure in presenting this Fiftieth Annual Report of The Society for the Relief of the Widows and Orphans of Medical men of New Jersey.

Fifty years ago a small group of medical men, realizing that there was a real need for financial aid to medical men or to the widows and orphans of medical men, organized this society, and it was incorporated on May 20, 1882.

Article II of the Constitution states:

"The object of the Association shall be to afford pecuniary aid to the Widows and Orphans of its deceased members and to furnish aid to its members in time of special need or in sickness."

A Constitution and By-Laws were adopted which expressed so completely and so admirably the aims and purposes that in these 50 years just passed, only a few minor changes were necessary.

Today we can be proud of our record. We have a membership of 504, and a permanent fund of \$49,035.92. During the year we have been able to donate \$1975. As in former years, the Society has met all its obligations promptly, and has quietly and without any publicity, and in a spirit of cooperation, helped those whom we knew to be in need, always trying to make the recipient feel that it was a great privilege to help. The good the Society has been able to do has fully justified its existence.

We are sorry to report that during the past year we have lost through death: Drs. J. P. Schureman, James A. Blair, Carl Hoening, M. F. Squier, Archibald Mercer, Norton Wilson, T. C. McNamara, George Waite and G. S. De Groot.

In this list we find the name of one of our early secretaries, Dr. Archibald Mercer, who served the Society faithfully for a great number of years, always working hard to promote its interest. He died at the age of 53 and up to the time of death was a member of the Medical Board of the Mutual Benefit Life Insurance Company.

We have added 25 new members and have lost 10 members, some because of non-payment of dues. We ought to have no loss from non-payment of dues, because so often the cause is merely negligence.

After a perusal of the books of the Society, from its inception to the present date, we note the rather interesting fact that 1129 physicians in New Jersey became members of the Society in the 50 years of our existence. As our Annual Report shows, we now have 504 members; 304 have passed away, and we have paid their claims, with a very few exceptions; i.e., those who were unfortunate enough to die at a time when they were delinquent for several previous assessments. This leaves 321 members who either resigned or were dropped from the rolls for non-payment of dues; more in number than we have lost by death.

It is unfortunate that this condition has existed, and the Board wishes to impress on the minds of members how necessary it is for the growth of the

Society to keep up our membership. It is not difficult for any one of us to induce a physician to join us, but it is difficult in many cases for the Treasurer to hold him.

Few members, outside the Board of Trustees, realize how valuable a membership can be to the Widow or Orphans of a deceased member. We are in a position to offer assistance covering a long period of years to those who are unfortunate enough to require it. Many members have died leaving young children; education is costly, and frequently widows are unable to meet this obligation. We are able to help in such cases, and have done so.

Few members realize, when they receive the familiar post-card from the Treasurer, announcing the death of a member, with a notation perhaps, that several previous assessments remain unpaid, that unless the appeal is heeded all those widows necessarily must remain unpaid until the member sends in the amount. Also, what is more serious, sudden death may overtake the member and his family will be deprived of any benefit.

Our By-Laws provide that we pay the widow only what the members pay the Treasurer, and your Board hopes the members will send in their payments as promptly as possible to avoid such complications.

We are greatly indebted to the Woman's Auxiliary to the Essex County Medical Society, for its special work in getting new members. A goodly number have thus been added and we surely appreciate such interest and help.

Fifty years of splendid work. Let us all renew our interest in the Society and double our efforts to make the next 50 years even greater and more useful.

Summary of Report of the Treasurer

Receipts

Balance on hand May 1, 1931...	\$2298.77
Amount received from assessments, initiation fees and interest	4853.24
	<hr/> \$7152.01

Disbursements

Claims paid	\$3311.25
Transferred to Permanent Fund	1000.00
Transferred to Permanent Fund (temporary loan to member)...	230.00
Incidental expenses, printing, postage, bonds for officers, etc....	577.77
	<hr/> \$5119.02

Balance on hand May 1, 1932	\$2032.99
Amount in Savings Account	1000.00

Total\$3032.99

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Each member of the State Society is entitled to receive a copy of the JOURNAL every month. Any member failing to receive the paper will confer a favor by notifying the Chairman of the Publication Committee of the fact.

NOTE.—The transaction of business will be expedited, and prompt attention secured if:

All papers, news items, reports for publication and any matters of medical or scientific interest, are sent direct to The Editor, DR. HENRY O. REIK, Vermont Apartments, Atlantic City, N. J.

All communications relating to reprints, subscriptions, extra copies of the JOURNAL, books for review, advertisements, or any matter pertaining to the business management of the JOURNAL are sent to THE CHAIRMAN OF THE PUBLICATION COMMITTEE (address above), Newark, N. J.

CREATING AN ATTITUDE

"If I like a radio program", said the alleged writer of a letter recently broadcast, "I make it a practice to give the article which is being advertised by that program a trial".

Admitting that probably a very small percentage of the over-fed public is so easily induced to try out the ingratiating claims made by the producers of everything in the world, from cosmetics to automobile tires, we nevertheless know that at the moment of supplying a specific need, the customer chooses a brand whose name is known to him, in preference to another for whose merits he has only the unsupported recommendation of the merchant. In other words, although his conscious reaction to the hackneyed phrases (used daily and sometimes twice daily, to promote certain well known commodities) is that of boredom, he is, in reality, by just the wearisome repetition which he resents, being subconsciously converted to the idea of at least a trial of the so highly recommended article. He is impressed by the sums, which he computes to be vaguely staggering, expended in apprising the long suffering public of its rare good fortune in the availability of this or that boon to health, beauty, dishwashing or whatnot. He knows that stations charge hundreds of dollars for the fraction of an hour, and that Eddie Cantor and Paul Whiteman do not

undervalue their talents. It seems self-evident to him that no firm would make such an investment in a worthless commodity and, by association of ideas, the commodity gradually assumes in his mind an importance corresponding to the rank of the artist employed to croon or otherwise laud its merits.

It is well known to analysts and other thoughtful persons that the successful marketing of any product depends today, not on the efficacy of that product, but on the quality and extent of its advertising. Consider Listerine, for example: The President of the Lambert Pharmacal Company said in Printer's Ink for March 28, 1931, that in 1920 the company earned \$115,500, spending practically nothing on advertising; that in 1930 it earned \$7,132,-412.55, after spending approximately \$5,000,-000 in advertising. From this typical illustration of what has been a common experience, it seems clear that the patronage of the public depends upon an attitude of mind that can be created almost at will by advertising experts, and the corollary to this proposition is that the unadvertised medium is practically non-existent, in so far as the general public is concerned.

This is the situation which today confronts the medical profession with its life-long ban on advertising. Compelled to admit that the advertiser gets the business, is the doctor com-

mitted to turning the mental and bodily welfare of the public over to the quack and nostrum vendor, who has no such traditional scruple? It has been 5 years since the Medical Society of New Jersey answered this question in the negative by appropriating a definite sum for "public education". The fact that this is merely a euphemism for "advertising" should by now cause not the slightest flutter of apprehension in the heart of the most conservative member, for the first definition of "advertise" given by Webster is "to inform", followed by "apprise or notify; hence to warn". Is that not a complete definition of our educational objectives? If any solace were needed to soften the blow of advertising having finally been forced upon the medical profession, it is surely found in the fact that such advertising as we do is more than justified. We know that by "informing" the public of the basic truths upon which the science of medicine is based, by "apprising" it of the application of these truths, and by "warning" it against false practitioners and worthless or harmful preparations, we are doing our utmost to conserve not only health, but life itself.

Having entered the field then, in this sense, it behooves us to learn and follow the rules, chief among which, as we have seen, is the creation of a comprehending and therefore favorable attitude toward medical science and the medical profession. This cannot be done by dwelling on specific ills and the dire consequences of ignoring certain physiologic principles. Ours is a self-indulgent generation, for which the Spartan ideal of a perfectly developed, perfectly functioning body holds no lure; the price in self-discipline is too high. As an example of this mental attitude toward muscle tone, for instance, take any High School assembly. In many of these (there are notable exceptions), scores of students may be seen half reclining, heads resting on backs of seats. In all of the schools, however, slumped shoulders are the rule rather than the exception. Average posture is poor. Speaking generally, it is only in military schools that spines still seem to consist largely

of bone. As further proof of non-resistance to personal inclination, mention to any school audience the advisability of limiting the intake of sweets, especially candy. The response is an undisguised groan accompanied by a completely non-coöperative smile. The very announcement, to such an audience, of a "health talk" creates an atmosphere of resigned boredom which the speaker must dispel or be rated as a flop.

In fact, the mere title of such a talk sells it or shelves it at the outset. If you bring to this audience one of the many stories of fruitful medical research, with its consequent benefits to humanity, you attain very easily a number of desirable results. You contribute a chapter to the education of the student body in science, and thus win the approval of the teachers, be they Christian Scientists or chiropractic adherents. You establish the unsailable authenticity of exact laboratory procedures, together with the value and rewards of accuracy and patience. You inspire the embryonic scientist with faith in his dawning ambition, and all of your auditors with a keener appreciation of the training which makes possible such accomplishments as you have recounted. Most important of all, however, is the picture you have finally drawn of the highly educated, earnest type of men who have devoted their lives to medical research and who have in some instances even sacrificed their lives in quest of medical truth. You have put over the inference that the members of the profession are, by and large, unselfish and trustworthy. In brief, you have applied the principle of creating an attitude, because you know that upon that attitude depend all the possible benefits of preventive care and curative treatment; that even life itself will often hinge upon the confidence thus implanted.

A CRITICAL MOMENT

The public press has recently announced that the existence of the Physiatrix Institute at Morristown is about to be terminated through foreclosure of a mortgage by Mr. or

Mrs. Otto H. Kahn. Such an occurrence must arouse a sympathetic interest among physicians not only in New Jersey but elsewhere.

Scientifically and medically, the Institute has held a national and international reputation for treatment and investigation of metabolic disorders. Dr. Allen became first and most widely known by his researches, comprising 3 years at the Harvard Medical School and 5 years at the Rockefeller Institute, which established a fundamentally new dietary treatment of diabetes. Dr. E. P. Joslin, in an address at the Academy of Medicine in New York shortly before the discovery of insulin, estimated that Dr. Allen's diet principles, as applied by average practitioners, had lengthened the average diabetic lifetime by 4 years and, applying this to the 1,000,000 diabetics of this country, he interpreted it as a possible addition of 4,000,000 years to human life. The same dietary principle, namely the regulation of total calories and body weight, is still necessary with insulin treatment, as well as in the great majority of diabetic cases not sufficiently advanced to require insulin. The Physiatrie Institute was one of the first places in which insulin was used, Dr. Allen being one of 5 specialists in different parts of the country selected by the Toronto Committee to make clinical trials and advise on methods 6 months before the new remedy was placed on the market. In subsequent years Dr. Allen and his Institute staff have published well known works on kidney diseases and high blood pressure, and most recently they have described (in the April issue of this Journal) an insulin treatment of tuberculosis which is now being employed with encouraging results in certain public hospitals in New Jersey and New York.

On the more practical side, the Physiatrie Institute in the 12 years of its existence has treated something like 12,000 patients. It is unique in purpose and character. It is recognized by the American Medical Association as a post-graduate school for metabolism, and

by the U. S. government as an institution qualified to receive foreign students outside the immigration quota. Numerous young physicians from this country and from Europe have thus received special training there. The greatest handicap was the failure to obtain an endowment, and the Institute with its staff of as many as 10 doctors and chemists, and its charitable and research activities, were all supported by earnings. The Journal of Metabolic Research, which published the first clinical studies with insulin and other important metabolic works, was supported entirely by Dr. Allen. These expenditures used up the entire income from the Institute and from his practice, none being set aside for himself. In consequence of the unexpected financial depression, the Institute has had to curtail its activities and has been hard pressed by creditors, but has steadily reduced its indebtedness, even during the depression, and has failed only to meet large capital payments on which a compromise was refused. In this period of large-scale cancellation of international debts and extreme leniency of banks and financial institutions to avoid crushing private debtors, the harsh action now taken toward a beneficent institution cannot but arouse unfavorable comment. If services such as those of Dr. Allen and his Institute are not worth a few years' moratorium on a mortgage, what are they worth? The destruction of this institution, and its suggested replacement by a hotel, will be a loss to New Jersey medicine, as well as a commentary on the rewards of a scientific career. With only a little coöperation it may still be possible to reorganize the institution, especially since money need not be donated but only invested in real estate of ample value and with a business able to pay the interest. A bankruptcy under these conditions is a challenge to New Jersey philanthropy and to the broader gratitude of diabetics and their friends everywhere. Possibly members of the medical profession may help by influence or by practical suggestions to avert the calamity.

Special Article

A VISIT TO THE TORONTO GENERAL HOSPITAL

John Hammond Bradshaw, M.D., F.A.C.S.,
Orange, New Jersey

Almost every large city has now a large General Hospital. Toronto, Ontario is no exception. It pays any doctor to make it a visit.

In the early days of the nineteenth century, Toronto was called by the beautiful name of "Muddy York". Canada has always freely given of her sons to fight for her flag, and during and after the war of 1812 she had many sick soldiers and veterans who required medical and surgical attention. The hospital we are about to describe was started at this early time, to answer this need. The money that the first small hospital cost was raised by melting down the medals of gold that belonged to the soldiers. The province considered it had done its duty by adding a sum of money (about \$20,000), but it made, moreover, a grant of 300 acres of land to the new institution. As these 300 acres were situated in what is now the heart of the City of Toronto, the latter gift was destined to prove of greater value.

Like all hospitals, it had at first a hard struggle to keep going. It was called in those days The York General Hospital. It had 70 beds and its expenditures were twice its receipts. It is always hard to meet deficits but, as the city grew, those 300 acres of mud-banks that it owned on Lake Ontario proved to be, in truth, banks of deposit; and, to keep the hospital running, they were sold off, a few acres at a time, to meet maintenance expenses, until now only 15 of the original 300 acres remain. But, 15 acres of land in the heart of Toronto is surely now a possession not to be despised. Today we find the hospital has changed its name to "The Toronto General Hospital", and with 1200 beds and many buildings it occupies almost 12 of those remaining 15 acres.

The main building of the present hospital, 3 stories high, was built of cream-colored brick, about 15 years ago, but the newer and higher structure adjoining was built only 3 years ago, of steel and yellow brick and is about 10 stories in height. As one stands now in the Entrance Hall and looks through the long corridors, he has an unobstructed view of more than 1000 feet. The grounds and quadrangles are beautifully kept. The institution has its own green-house and can supply cut

flowers for the poorer patients, and the grounds are covered with many beautiful shade trees.

The management is one of great economy, as the keep per capita averages only about \$2 a day. Patients in the wards are expected to pay \$1.75 a day for their care and board, and where this is not forthcoming, a requisition is made on the municipality from which they come, and this amount per patient is then paid to the hospital. Semi-private patients (2-bed room) pay \$4.50 a day. Private rooms range from \$5 to \$12 a day.

Besides the many rather old-fashioned operating rooms (a suite on each of 3 floors), there are 15 modern operating rooms in the new building; and these are very beautiful with their pearl-gray tiling. All have operating table light, known as the "Operay", and all have their sterilizing rooms equipped with sterilizers concealed in the walls of the building—only the doors of the sterilizers being visible. This avoids much heat.

The private rooms are interesting, in that each has its private bath and closet, and many have small private porches. All have concealed night lamps, near the floor behind the table, a thermometer sterilizer, and one of the most unique devices for easily emptying bed-pans and urinals. The bedside table has an adjustable shelf that can be extended across the bed to be used for supporting the food trays. There is also a telephone and a radio in each room, and a double system of registering calls.

The whole hospital is equipped with telautographs, and the special telautograph nurse has a special stand for her instrument on each floor. A few pages are necessary, to carry messages, but a delay longer than 5 minutes in responding to any call is an unpardonable sin. A record of the exact time of each call is made, and of the time it is answered.

Here, also, is seen the reading light over the patient's head, with an extension adjustable arm which even allows the doctor to make an abdominal, rectal, or vaginal examination by simply using the patient's own reading lamp.

One must visit the kitchen if one wishes to see modern methods in culinary management. There we find rows of pupil nurses preparing the trays which are moving by the Matthews conveyor system. On these mechanical conveyors the trays ride along like a train of cars to their respective destinations; automatic lifts carry them to any of the 9 floors so quickly that the average time taken is only 4½ minutes from kitchen to patient in any room. In fact, the time is so short that neither artificial nor mechanical heating is necessary.

The 500 nurses are fine looking girls, who

must have had 4 years of High School education. There are very few "specials" used in the hospital. One supervisor for each floor, and the pupil nurses, do all the nursing unless special attention is requested by the attending doctor or the patient.

One must not forget to state that each year this hospital cares for 100,000 out-patients, besides those occupying the beds.

The Toronto General Hospital is a unit of the University of Toronto, and is therefore a *teaching* hospital with many medical students admitted to its wards and operations. The chief surgeons are all professors in the University.

In talking with a few of them, they appeared much interested in the newly formed Canadian College of Surgeons, and thought that for Canadian surgeons it was better than the American College of Surgeons.

The chief criticism the writer makes is that there is no doctor on the Board of Directors of the Toronto General Hospital.

Economics

INSURING HOSPITAL CARE AND COSTS

(Dr. Rorem's article might have been abstracted from the original, for publication here, but, because of the probability that it will be brought to the attention of many of our member-readers by their patients, who have learned about it from the news-paper and will discuss it from that basis, it seemed better to reproduce the following from the Newark Evening News, of July 8, 1932.—Ed.)

It is a truism that the white-collar man—and woman—cannot afford to be sick. The poor man goes to the clinics and to City Hospital; those in higher salary brackets pay double to make the care of the poor possible.

The man in the middle does one of two things—he goes dangerously into debt or he allows his doctor and his hospital to go unpaid. Neither is fair.

Strangely enough, medical care, and especially hospital care, is one of the few things the white-collar man cannot afford. He can afford to have his house burn, he can afford to be sued for his automobile accidents. For these contingencies he buys insurance.

Yet statisticians tell us that one member of the average family spends some time in a hospital every year. Houses do not burn that often and automobile accidents are not so frequent in families.

Hospitals, in Newark as elsewhere, are having trouble. In spite of their large share

of Community Chest and other funds, they find themselves facing bigger and bigger deficits annually. At the same time the white-collar workers, anxious to pay their own way, find themselves unable to afford proper hospital care.

INSURANCE PLANS "WORKING"

A partial solution for the problem of the hospitals, and also for the white-collar worker and his colleague, the self-respecting wage earner, is offered by hospital insurance plans, some of which are working satisfactorily in American cities.

Dr. C. Rufus Rorem, Associate for medical services of the Julius Rosenwald Fund, recently completed a report on sickness insurance in the United States. His section on hospital insurance gives a clear picture of the plan now being used. Operated for profit, he says, it fails, but some groups, running on a nonprofit basis, have succeeded over periods as long as 10 years.

The Rockford (Illinois) Hospital Association and the Thomas Thompson Trust of Brattleboro, Vermont, both have been in successful operation more than a decade. More recent plans have used a system in which a hospital or group of hospitals contracts with a local group of policy holders to provide certain definite services at an agreed amount per person per year.

The Baylor and the Methodist hospitals of Dallas, Texas, are operating under this plan and each has under contract several thousand employed persons. Dr. Rorem describes the plan in use there as follows:

"For the payment of 50 cents per person per month the hospital agrees to provide without extra charge, hospital service when needed, including operating room service, anesthetics and laboratory fees, routine medicines, surgical dressings and hypodermics for a period not to exceed 21 days during a 12 months' interval.

SOME CASES NOT COVERED

After 21 days the beneficiary is given a 1/3 discount on regular and special hospital services required during an illness. The benefits of the plan do not include x-ray service, special prescriptions, serums or doctors' or special nurses' fees, although liberal discounts are granted from the usual x-ray picture charges.

Contagious, tuberculous and mental diseases are not included in the benefits, after they have been diagnosed as such. Obstetrics are granted a 50% discount on hospital services after a period of 10 months' membership.

In case no beds are available in the hospital,

patients will be cared for in another institution. In case of a general epidemic causing lack of beds throughout the city, the hospital will refund to persons needing hospitalization twice the amount paid during the previous 12 months. Except for accidents, which are taken care of immediately, the contract becomes operative 10 days after date of application.

The financial arrangements provide a minimum of expense to the hospital. Groups of employees join in subscribing to the hospitalization plan. They collect the monthly, quarterly or semi-annual dues and make one single payment. Individuals are not permitted to join the plan singly, nor may individual members pay their fees directly to the hospital."

The plan, as outlined by Dr. Rorem, calls for care of all patients in private or semi-private rooms, with x-ray charges at 50% discount and annual free blood and urine tests. On being admitted to the hospital, each patient agrees to pay the balance of 1 full year's fees.

Baylor Hospital has about 40 groups, ranging from 10 to 2000 members each.

TEACHERS PAY HIGHER RATE

Dr. Rorem tells of the first group to agree with Baylor Hospital, one of school teachers. It was found that, although the \$6 a year rate was satisfactory in other groups, it was necessary to raise the school teacher rate to \$8.

At present, employees of Dallas banks, department stores, insurance companies, newspapers, wholesale houses, brokerage concerns and others are cooperating in the plan. The only difference in the 2 plans in Dallas is that Baylor works directly with groups of employees and the Methodist Hospital works through a professional promoter, who collects \$9 and pays \$6 per year per member to the hospital.

"These experiences", Dr. Rorem states, "indicate that the plans in effect are actuarially sound. In one hospital the average receipts per patient-day were \$6.60; in the other \$7.60. It was found that approximately 10% of the members used the service during a year and that the average length of stay was approximately 9 days.

To be sure, the 21-day limitation does not protect the member against the extreme cost of a severe illness, but the beneficiaries are insured for approximately \$200 worth of hospital service. A group payment plan enables a large number of individuals jointly to pay the costs for the relatively small number in the group who will need hospitalization.

HOSPITAL FINDS PLAN PAYS

Several features of the plan make it financially advantageous to the hospital.

"First, a minimum revenue is assured, whereas many of the patients would otherwise have to be accepted as charity cases. Second, the patient is required to pay for his own x-ray service and does not, therefore, request unnecessary treatment. Third, the limit of 21 days protects the hospital against large expense for chronic or incurable diseases. Fourth, the additional cost of giving board and room service to a patient in a hospital which is ready to serve at full capacity is often very low. Fifth, the privilege of refunding money in case of an epidemic avoids the possibility of the plan's being a financial drain on the hospital.

Sickness insurance is a plan by which self-supporting people continue to remain self-supporting as a group as well as individually. It is not a means of dispensing charity. It is a means of avoiding charity."

Esthetics

INDIGESTIBLE MUSIC

Wild, raucous music in a restaurant may send the guests home with indigestion. And they mistakenly blame the cook for it.

Jazz is especially apt to upset digestion, according to a writer in *The American Weekly*, New York, from which the following is abstracted, and this form of music should not be played at restaurants if the proprietors desire their guests to be free from discomfort.

"When jazz goes into most people's ears, it goes straight to their stomachs. When to the crazy music is added the barbarous custom of getting up from the table every few minutes and dancing, the effects are even worse. And these are the reasons, many scientists believe, for the increasing number of patients who complain to their doctors that they have indigestion after 'eating out' at restaurants where jazz bands, 'special entertainers', and dancing accompany the meals.

'This effect of music upon appetite and digestion', writes Mr. T. Swann Harding, a government scientist at Washington, in a recent article in *American Medicine*, 'should be investigated more thoroughly.

'Certain it is that many a person who enjoys quite normal digestion while eating quietly at home will suffer gastronomic disaster by eating the very same food, perhaps even as well prepared, in a restaurant.'

One well known New York hotel found out, not long ago, we are told, that jazz did not agree with its patrons at the dinner hour, and now allows no "blue" numbers to be played until after 9 o'clock. Furthermore:

Dr. Donald A. Laird, of Colgate University, speaking recently before the Acoustical Society of America, gave the results of experiments to discover how noises of various kinds affected the secretion of saliva in the mouth and gastric juices in the stomach.

He said the experiments had proved noises were, to a considerable degree, responsible for the prevalence of digestive disorders in modern life. It did this largely by cutting down the flow of saliva and gastric juices.

A diet rich in foods or beverages that offset the depressing effects of the noises was recommended by Dr. Laird. Sweet-tasting foods and aromatic beverages would help much. The aroma of coffee, sweets, cinnamon toast, or even plain bread, increased the secretions.

The chief center of the emotions is believed to be in the lower part of the brain. Here also are believed to be the brain-cells which give us the sensation of hunger, also the sensations of nausea, heartburn, and other symptoms of indigestion.

According to the theory, anything which disturbs or excites the emotional center of the brain is immediately felt by the 'hunger center'. This is linked with the nerves, which in turn largely control the muscular movements and blood-supply of the stomach.

A mild excitation, such as afforded by gentle, 'soothing' music, or sights not too disturbing to the emotions, may have a beneficial effect upon digestion.

But violent, discordant, barbarous rhythms—sounds such as are produced by 'jazz'—set up strong emotional disturbances, which are communicated to the nerves and produce stomach movements and changes in blood-supply to the organ. These may seriously interfere with the digestive processes, especially when they occur during the act of eating.

Recently the distinguished Boston surgeon, Dr. Harvey Cushing, announced to a surgical convention at Toronto his conclusion that the true cause of gastric ulcers, diseased conditions of the stomach which kill and injure thousands of people every year, was to be sought in the brain instead of the stomach.

One instance which Mr. Harding cites of how the emotions upset the stomach is that of a girl who received a threatening letter from the local tax-collector. All that she owed was \$3.85, but this was enough to make her take

to her bed with such violent stomach trouble that specialists found it impossible to relieve her. Finally, one of the specialists discovered the \$4 debt, and paid it. Instantly, the "incurable" stomach trouble was cured.

Once one appreciates all the possibilities of emotional effects on digestion, it is apparent that conditions in the average American restaurant are seldom the best for digesting food, declares the writer, and he proceeds:

"It is a common belief that restaurant meals are less digestible than home meals because of 'rich food', or because restaurant cooking is less good.

Restaurant men protest, on the other hand, that the foods which they buy are of even better quality than average home foods, that they are better cooked, and that every effort is made to make the food digestible.

It is quite probable that both contentions may be correct. Restaurant food may be as good as the best in the country, and still the average American digestion may fail to digest it.

The explanation would be that the surroundings of the restaurant—the lights, the crowds, the sight of new people, the music, the dancing, and all the rest—upset the emotional controls of the digestive system in the brain.

Many other psychologists have suspected profound effects of different kinds of music on the human body and mind. Recently, at the University of Wisconsin, Dr. R. W. Husband and Miss Maxine Brostrom conducted an interesting research into the kinds of music that make people move their bodies and keep time with their feet.

It is significant that jazz headed the list.

This supports Mr. Harding's contention that jazz creates the most powerful emotional disturbances.

Waltz music stood next to jazz in the bodily motions which it stimulates. Marches, much to everybody's surprise, were found not to make people keep time with their feet or bodies as much as jazz or waltzes.

Before long there will be many more scientific studies of such bodily effects of different kinds of music, perhaps enough of them so that physicians can prescribe a certain phonograph record for their ailing patients during meals, another and different record for bedtime, and still others for other times and circumstances.

And if a host wants to give an unwelcome guest a case of indigestion, so that he never will return, even that, it is possible, will not be beyond the abilities of musical prescribers."

Collateral Reading

AN ENCYCLOPEDIA FOR SUMMER READING

Many years ago, there lived in a small country town in the State of Delaware, a physician who devoted his life to the welfare of those who had enlisted his professional services, and who did not limit his service to healing their wounds, and curing them of illness, but gave much beyond what could legally have been required of a "family doctor"—even of an "old-time doctor". Among those who called him her doctor was a woman, wife of a sea-captain on a tramp 3-mast schooner, and mother of 2 sons and 1 daughter, whose early education (schooling) had been sadly neglected. Recognizing her interest in the schooling of her own children and her embarrassment in not being able to help them with their lessons, this physician taught her to read and write, selected simple story books for her to read at home and, finally, gave her the "run of his library". Returning to his office one evening, he found her choosing a book and, after a few words of greeting, she said: "This book, which I took out last week when you were not here to help me, is the most interesting book I've ever seen; *it is just full of short stories* and I could read any one through, between house-keeping tasks, without feeling that I was stealing time from things I should be doing, or getting mad because I had to stop in the middle of a story." Upon looking at the book, he discovered that it was a volume of the Encyclopedia—and he then, and all persons to whom the story has been told since, considered her *classifying an encyclopedia as a book of short stories*, quite a joke. When one thinks a bit deeper, however, her idea of classification was rather clever, as we find exemplified and approved in a column of the New York Sun, of July 13, 1932, and worthy of reproduction here:

Is the reading of encyclopedias a good habit? Perhaps that depends on the encyclopedia. Writing on "Habit" in the current volume, Professor Gardner Murphy says, "considerable discomfort is involved in breaking almost any habit * * *". Let this reviewer testify right here that he should feel acutely the break in his reading habits if something should happen to interrupt the series of this Encyclopedia of Social Sciences (Volume 7: Gossen to Industrial Relations. Macmillan Company. \$7.50). It has been fun to make secret bets that each volume of the work would be more interesting than the one before. But

that is a futile pastime, for any lucky owner of these volumes has already discovered that each is a small library in itself; no single unit of the set tops the others in interest or content of information.

Appearing in January, 1930, the first volume promised 14 more at the rate of 3 annually. The current volume brings us close to the middle of the set. It is proper at this half-way mark to repeat our congratulations to Editor-in-Chief Edwin R. A. Seligman and his associate, Alvin Johnson, and to all their industrious assistants; the 7 volumes now in print represent a stupendous job expertly done.

You cannot measure an encyclopedia by the inch nor count its pages to learn its value, but perhaps some idea of the magnitude of the present work may be conveyed by noting that in the 722 pages of this latest volume are more than 500 different articles covering various branches of the social sciences and the lives of important personalities in those sciences.

Certain volumes of the series have been timely to an astonishing extent; by coincidence or plan, they contain keys to topics that are front-page news. Whether a man be a politician, a banker or a philosopher, a statesman or a merchant, he can find material in this encyclopedia to guide him in understanding many problems of the moment. Just as easily may he find in these volumes an hour's escape from problems of the moment.

No better illustration of this could be found than this seventh volume. It will be a delight to the student of history, an instructor to those seeking light on economic questions. But here is, also, reading galore for all who find pleasure in feeding their interest in psychology, science, philosophy or world affairs and the men and women who have left their mark in these fields.

Most prominent among the features of this new volume is a section of more than 100 pages on governments of the world, with an opening chapter on the history and theory of government by W. J. Shepard. Each government is explained by a different authority. Arthur W. MacMahon, of Columbia, treats of the United States, Harold J. Laski writes on Great Britain, Maurice Claudel on France and Belgium, and so on down a list of 30.

Several famous industrialists appear among those whose biographies brighten the contents of this volume, Jay Gould, the Guggenheim family, Henry O. Havemeyer, James J. Hill, Abram S. Hewitt. Literature is represented by brief lives of the Brothers Grimm, Horace

Greeley, Sir Henry Rider Haggard, Ibsen, Hazlitt, Heinrich Heine and others.

Politics and history provide a number of noted personalities for the biographies of this volume, among those so honored being Alexander Hamilton, George Grote, Marcus Hanna, George B. McC. Harvey, John Hay, David Hume. A section on history and historiography by 7 authorities is another feature holding the keys to a wide field of learning. International relations and history are well served by articles on the great Powers, Hague conferences, Hanseatic League, Holy Roman Empire, Holy Alliance and Imperial Unity.

A number of current economic problems receive light from articles on Income Tax, by Editor Seligman; Index number, by C. M. Walsh; Holding Companies, Hoarding and House Taxes.

Among the more abstract reading matter are sections on Humanism and Humanitarianism, Idealism, Idolatry and Iconoclasm. Almost every article in the entire work, moreover, includes bibliographies that are truly amazing as an index to the craftsmanship which has gone into this work.

In Lighter Vein

Keeping in Practice

"What's become of that hit-and-run driver?"

"He's now doing his stunt on the prison baseball team."—Boston Transcript.

Life's Darkest Moment

First Hobo—"What's worryin' yer, 'Ehbert?"

Second Hobo—"I found a recipe for 'ome-made beer an' I ain't got no 'ome."—Smith's Weekly.

Knows Her Constituent

Canvasser—"Madam, I am taking data for the new political directory. What party does your husband belong to?"

Mrs. Peck—"Take a good look, Mister—I'm the party!"—Buffalo (N. Y.) Truth.

Lost Her Face

A nifty young flapper named Jane

While walking was caught in the rain.

She ran—almost flew,

Her complexion did, too,

And she reached home exceedingly plain.

—Boston Transcript.

A Wilt as Good as a Will

A passerby stopped to watch an old man in his garden weeding.

"Which weeds do you consider the easiest to kill?" he asked.

"Widow's weeds", answered the old man. "You only have to say 'wilt thou', and they wilt."—By-stander (London).

Lighthouse Observations

ATTENTION TO THE HARD-OF-HEARING

M. Raymond Kendall, M.D.,

Otologist to the Cleveland Board of Education

(Abstracted from the School Physician's Bulletin, May 19, 1932, p. 11.—Ed.)

Not long ago, the new Director of the Garfield Home for the Hard of Hearing in Cleveland posted a bulletin in front of the house containing the pertinent suggestion: "*Most deafness is the result of diseased conditions starting in the first 10 years of life.*"

With this thought in mind, the Cleveland Board of Education planned the work of its otologist, Dr. Lyman W. Childs, and I have the honor of carrying out his suggestions.

The work done with children who are suffering from even a minor defect in hearing, starts with a hearing test. An audiometer (4-A) is taken to each school once a year. The test is made by a trained technician on all children in the third grade; on those who are in the radio classes in the 2-B grade; and on the children referred by the teacher or school physician. Frequently, the fact is discovered when the teacher questions the child's hearing because of inattention, or when he fails to keep up with his class. Again, the school physician, during his routine examination, may discover some abnormality in the ear, so lists such children for hearing tests and an examination by the otologist.

Every child who shows a hearing loss of 9 or more sensation units in one or both ears, is referred to the otologist for examination. He makes a complete examination of the ears, including a voice test of the hearing. When defects are found in the ear, nose or throat, recommendations are made to the parents, urging corrections. This procedure takes care of all remediable defects.

For children with a hearing defect of 18 sensation units, or more, in both ears, instruction in lip reading is recommended. Children having a discharge from both ears are also recommended for lip reading instruction, regardless of their hearing, because of the poor prognosis.

The Board of Education employs 2 well-trained lip reading teachers who have classes in 10 school centers. A half-hour lesson is given twice a week to each child. Noticeable improvement in their school work has been shown by these pupils.

At the Alexander Graham Bell School, a clinic is conducted, twice a week, by the otologist, who makes a careful examination of all *special cases*, in consultation with the parents and the school principal. This takes care of any child who may have been overlooked during the routine visits, due to absence of the pupil or later discovery of his defect in hearing.

Among the children visiting this clinic are those of pre-school age, brought by parents or referred by physicians, questioning their hearing ability. If a hearing defect is found, recommendations are made for the necessary medical attention or admission to the School for the Deaf.

We feel that Cleveland, through this work, is taking her place with other cities making a special effort to take care of the hard-of-hearing child.

SPECIAL SCHOOL ARRANGEMENTS FOR HARD-OF-HEARING CHILDREN

Not long since, on May 24, to be exact, the Newark Evening News carried an interesting report, by Mr. J. H. Morris, concerning special classes and instruction for school children who, because of impaired hearing, are handicapped in the regular class-room provisions and routine curriculum for the physically normal child. As Mr. Morris viewed the matter from the practical side rather than its scientific or pathologic aspect, we present his report herewith.

Every child is regarded as a special problem at the School for the Deaf, which is a unit of this city's school system, and for that reason pupils transferred there from other schools make surprising progress in many instances. The deaf and nearly deaf child is usually not conscious of the cause of his handicap, and yet realizes that in some way he is different from his classmates when he is in a regular elementary school.

When accused of inattention in class, these children, finding themselves unable to keep pace, suffering under a sense of bewilderment and aloofness, become shy and self-conscious and often are grouped hastily with the discipline cases. When their handicap is realized and they are sent to the school for the deaf, in the old Bruce Street School building, a new world opens to them.

There are now on roll 108 pupils and the number is growing since the head teacher, Miss Grace L. Wright, a few weeks ago made an appeal for a more careful diagnosis of deaf cases in the schools.

Miss Wright, who is on leave of absence because of illness, addressed the conference of principals with City Superintendent of Schools Logan at the April meeting. She expressed assurance that there were many pupils failing in the schools because of deafness, who might do good work if placed in the special school for the deaf.

Among the types of pupils in that school are: Children who are congenitally deaf and therefore entered the school without speech; some who became deaf when so small that they lost their power of speech, and others whose habits of speech were so fixed before loss of hearing that they can speak without special training.

HANDICAPS

Of course the last mentioned are less handicapped than the others, but still can gain little in an ordinary school. In many schools no special attention is given the deaf pupil even when his handicap is realized. One boy, who was becoming more and more retarded because of his inability to hear what the teacher said, was required to sit in the back of his class room before being sent to the school for the deaf.

"Couldn't you hear even when sitting up front?" asked the new teacher in the special school, finding that the boy was not wholly deaf.

"I couldn't sit up front", he replied, "because I was too tall—the smaller ones had to sit in the front."

Frequently it is found that a child of normal mentality is rated as backward or subnormal by the class room teacher in the regular grades when his only handicap is deafness. Miss Mary E. Biller, acting head teacher, spoke of this and the serious reaction such an interpretation has upon the pupil. Some pupils at this special school are mentally below grade. These are kept in a group by themselves and given work suited to their limited abili-

ties. Often they can do well at some type of manual work. Others have been rated above normal and with the aids afforded them are making excellent headway in academic subjects.

Some make good in high school, but Miss Biller spoke with regret of the fact that because of the cost there is no high school in the country for deaf pupils. Advanced training for the wholly deaf can be had only in special institutions and it is felt that being segregated altogether has disadvantages. So far as is possible it is considered best to keep the pupils in their homes, where they have a more normal social life.

COSTLY

There is little special equipment in the old Bruce Street building for this group of pupils, but because of the small enrollment the instruction is costly when estimated on a per capita basis. The cost last year was \$595.

Because smaller communities can not afford a special school of this type, there are always some out-of-town pupils enrolled in the Newark school. At present there are 27, but the charge made for their tuition is less than half the cost. Out-of-town pupils pay only \$200 for a school year.

Some of the graduates are doing well in the business world. One who has graduated from college and has become a lawyer is making a success in real estate business. The school gives much help in vocational guidance as well as looking after the child's health and providing a thorough academic course for all who can complete such training.

Albany is among the progressive cities which provide separate instruction in the public school system for the very deafened child. Two specially trained teachers instruct this group in both grade work and lip reading. During the period of time between May 1930 and June 1931, a very comprehensive survey of the hearing of public school children was made, and from the published report (N. Y. State Jour. Med., 32:791, July 1, 1932) by Dr. E. M. Freund, we have selected the following interesting statements.

CONCLUSIONS

(1) Of a group of 9741 children tested, 339 (3.5%) showed definite defective hearing, while 168 (1.7%) showed borderline defects; giving a total number of 507 (5.2%) children with impaired hearing.

(2) The large incidence of hypertrophied and infected tonsils and adenoids among the children with impaired hearing shows this to be a definite factor in the production of deafness.

(3) Tubal catarrh or middle ear involvement in this group plays a more important rôle in the production of impaired hearing than does the evidence of previous drum abscesses.

(4) We cannot emphasize too strongly the urgency of discovering hearing defects in early childhood. It has been estimated that the follow-up work and correction of these physical defects should reduce the incidence of deafness in children to less than a fourth of the present total.

(5) Sex does not seem to be an important factor in the incidence of deafness.

(6) Impaired hearing is a definite cause of mental retardation. Recent statistics show that from 10 to 12% of the school budget goes toward the expenditure for the repeating child; and nearly

60% of this expenditure is traceable to the hard of hearing child.

(7) Prompt parental coöperation in correcting ear, nose and throat defects lessens the possibility of development of impaired hearing.

RECOMMENDATIONS

(1) A thorough hearing survey is an essential need in the modern educational program. It is the consensus of opinion that such a survey should be conducted 2 or 3 years in succession. After that period, all incoming third year classes, all new pupils entering the school system, and all defective and borderline cases should be examined annually or more often when indicated.

(2) Pupils absent because of ear, nose and throat diseases, and the various exanthems should be given hearing tests on their return to school.

(3) All children with defective speech (stuttering, stammering) should have a routine hearing test. It has been pointed out that many of these conditions are due to imperfect hearing.

(4) The hearing survey and examinations should be conducted by a part-time otologist. He should have to assist him a school nurse, assigned to this particular work, whom he can train in the technic of testing.

(5) All cases of impaired hearing should be promptly reported to the parents, who should be urged to place the children under the care of their family physician or an otologist. Where financial handicaps exist, the children should be taken to ear clinics for treatment.

(6) Lip reading instruction should be given to all pupils showing a bilateral hearing loss of more than 30% or a unilateral hearing loss of 50% or more.

(7) A proper understanding on the part of the classroom teacher, of the psychology and intelligent handling of the hard of hearing pupil, is very essential for his educational development. Some suggestions as to classroom handling of the hard of hearing child are: (a) front row location; (b) additional rest periods; (c) kindly encouragement without emphasis on the handicap.

(8) Each school should have a "permanently quiet room" for the eye, ear, nose and throat examinations, according to Dr. E. P. Fowler of New York. Such facility would give more accurate results in the tests by eliminating extraneous noises.

Current Events

HUDSON COUNTY SOCIETY'S PUBLICITY CAMPAIGN

Under date of April 12, 1932, Dr. P. E. Maras, Chairman of the Publicity Committee of the Hudson County Medical Society, informed us by letter that the organization which he represented contemplated the launching of an extensive: "Program of education of the public * * * including publication, in the news-papers, of the Society's Membership List * * * and, induction of 31 newly elected Members at a public Dinner aboard the S. S. Exeter, on April 23, when these new practitioners will be more intimately acquainted with their proper relation to the public, to hospitals, to the Society, etc., through "Addresses to be delivered by several Past-Presidents of the Society".

We were unable to grant the request made later—to dedicate a complete month's issue of the Jour-

nal to the County Society's program and report of progress to date—nor could we, when the Report was received, promise that all the material supplied should be held intact for publication of all at one time. In the July Journal, we presented Dr. Baketel's Address, on the occasion of "induction into membership" of new members as referred to above. In this issue, we will present abstracts of the other speeches of that evening, and mention some other features of the general program of publicity.

The Hudson County plan for *group publicity* began, we believe, with a paid-for advertisement in several of the most important news-papers in Jersey City—which is, to say, in effect, in the county—using the space taken by publishing therein the entire list of County Medical Society members, giving name and office address of each. This was accompanied or followed by an article, in the same group of news-papers, explaining that each member held, and should have openly displayed in his office or reception room, a *Certificate of Membership*; facsimile of which was printed with, or in, the article. Further, and in similar manner, it was shown that each member had the right to use a special *Seal* on his stationery and bill-heads. Apparently, it was expected that a would-be patient, having selected a physician, from the published membership list possibly, but no matter if made otherwise, would look about for the Certificate and, if not displayed, inquire as to its possession; the inference, in the inquirer's mind (planted by the advertisement-article) being that if the physician has no County Society Certificate he is of questionable value as a physician to be employed.

Then came the Dinner Induction Meeting, at which the following speeches were delivered.

RELATION OF DOCTOR TO PUBLIC

Dr. S. R. Woodruff: Next to the relation of yourself to the individual you are treating as a patient, comes your relation to the public at large. For, after all, you *are* your brother's keeper. You have become doctors of medicine, which means that the most precious possession of the human race—its health—is in your keeping. Never let it be said that you have failed to heed the cry of the afflicted or turned a deaf ear to those in trouble, because of any personal animosity or the lack of funds by those who would seek your help.

You are not only one who attempts to cure human ills but you are, likewise, one who aims to show how they may be avoided. You must consider yourself an ex-officio member of the Board of Health in this County, and, with the title M.D. behind your name, it is your sworn duty to aid just as much in preventing disease as in curing it. Your training as physicians has taught you how to prevent many diseases whose cure is less certain.

Your relation to the public at large must be more than that of the individual's "Doctor". You must be the leader in things pertaining to health. You must be willing to take criticism and perhaps abuse to gain your point in showing up flagrant violation of health rules in your community. Be careful, however, to avoid censure, or bringing ridicule upon yourself, by public utterances about people, or about subjects concerning which you have little knowledge. Do your duty to the poor of your city, and to those overtaken by sudden illness or accident, by working part of your time in a hospital or clinic.

Uphold the dignity of your profession. Remem-

ber that you are next to the clergy, in importance to your neighborhood. The most terrible lack of dignity—to a member of the medical profession—is to permit yourself to be called "Doc". The people are quite fond of this appellation, and some physicians are equally indifferent to its vulgar familiarity; let us educate our patients to realize that we dislike it and that to us the word is *anathema*. It is not my purpose to dwell upon the attitude of the public toward you as practitioners of medicine and members of the County Medical Society. You will find, however, that much of the attitude of the people depends upon your treatment of them. "Cast your bread upon the waters and it shall be returned unto you"—is one of the truest of the true statements. If your attitude toward the public is one of dignity, integrity, sacrifice and help, that same will be returned to you also. If you obtain a reputation for greed, slothfulness and general incompetence, you become a liability to any community, and you may expect in return the natural results of such conduct.

THE RELATION OF THE DOCTOR TO THE INDIVIDUAL

Dr. John M. Cassidy: Your relationships with individual patients play a great part in your medical career. The success or failure of your career depends entirely on you. Even now you are writing your medical biography. When it is finished, will you be able to say that it has been a successful one, or will you have to admit that it has been a failure? If you stop to read the biographies of men who have been successful you will find that they have been successful because, consciously or unconsciously, they have adopted a plan for their lives. Only recently I have re-read "The Americanization of Edward Bok" and the "Autobiography of Benjamin Franklin". It interested me to know that both men had been successful because they had followed a very definite plan. So, you too, must have a definite plan. You must set a goal for which you must strive. To guide you in the formation of a plan for your medical career, you may be aided by the small pamphlet on Medical Ethics published by the American Medical Association. You may also be aided in the formation of your plan if you will follow the principles laid down in the Hippocratic Oath. For minor details, I can earnestly recommend to you a book by Dr. Cathell called the "Book on the Physician Himself".

Among the principles which you adopt, I would suggest that *honesty* should occupy a prominent place. Be honest. Be honest with your patient. Be honest with yourself. If, for example, you are treating a patient with a high blood pressure and that pressure does not come down as the result of your treatment, do not be afraid to tell the patient the truth, if you are asked about the pressure. If you cannot make a diagnosis, be honest both with your patient and yourself, for if you recognize your inability to make the diagnosis it will drive you to do some reading and thinking. By doing this, you will become a better diagnostician, and a better and a safer physician. Remember to treat every patient as you would expect to be treated, or to have a member of your own family treated. At first, you may lose a patient, and you may lose the fee, but in the end it will pay, for you will become known as a *safe physician*. Be honest in your financial dealings with individual patients. Do not resort to trickery to increase your income; it soon becomes found out.

Another principle which I would suggest is that you strive to give each individual patient the best

possible medical service. To do this, it may be necessary to change your attitude toward the patient. While you were an interne, in the hospital, you looked upon each *patient* as just another *case*. In the hospital, you treated the disease which afflicted the patient and forgot all about the patient as a human being. Now, you must treat the patient. Patients react, psychologically, differently to the same disease. Your treatment must take into consideration these differing psychological reactions. The constitutional factors, the environment, the economic status, must all be considered, for they will all influence your attitude toward the patient.

To render the best medical service possible, to each patient, will require that you strive constantly to increase your knowledge. Experience alone will improve your medical judgment. You must remember that your medical diploma does not represent the maximum amount of knowledge that one might have, but merely proves the minimum amount necessary to pass an examination. Your license to practice medicine, too, represents only the minimum amount of knowledge that the authorities consider necessary to make you a safe person to be intrusted with the lives of others. A carefully taken history, and a thorough physical examination of each individual patient, will increase your dexterity, your *finesse* and your knowledge. No slipshod examination or snap diagnosis will ever increase your knowledge. I may say here that more errors of omission than of commission are made. From my contact with medical students and younger physicians, I find that there is too much of a tendency at the present time to rely on laboratory procedures for making a diagnosis. Perhaps it is an easier method; but, people in ordinary circumstances, cannot stand the financial pressure for all of these elaborate procedures. If you will strive to increase your knowledge of history taking, and strive to perfect yourself in the art of physical examination, you will be surprised to find that very accurate diagnoses can be made without any of those highly technical procedures.

Your knowledge can be continuously increased by post-graduate study courses. This does not necessarily mean that you must become a specialist. We are located next door to one of the largest and best organized medical centers in the world. Yet, in my work in New York, it interested me to see how relatively few of the men who were taking courses, were from the metropolitan areas. Your State Society has made it easy for you to increase your knowledge; it has brought review courses right into your own town. Lack of time can hardly be offered now as an excuse for not taking post-graduate instruction.

Regular attendance at meetings of the County Medical Society will, also, help to increase your knowledge. The speaker may not have brought to you one single new fact, but, if he has started you to think about the subject, the main object of his lecture will have been accomplished.

One other principle, in your relationship to your individual patient, that I would suggest is that you charge each patient a fair fee in return for fair services. In the practice of medicine we are not supposed to think of the fee first, and I am not urging you to do so, but without fair recompense for services rendered the quality of service goes down. We, in spite of being physicians, are subject to the same economic laws that affect the patients we are treating. The landlord demands his rent; the city demands its taxes; the national government demands its taxes, too; and so on down the list in our every dealing we are subjected

to the same economic laws as others. If we do not meet these demands, we are subjected to the same penalties as meted out to others. The fact that we are physicians does not exempt us; in fact, on several occasions, I have been fined because I forgot to pay my narcotic tax on the stated date.

In disputes over fees the court is guided by the customs of the particular neighborhood. In this neighborhood it has been the custom to charge for medical service on the basis of the number of calls made; not on a basis of time spent or the kind of service rendered. This system is economically unsound and is not conducive to good service. When I go to my tailor for 2 suits of clothes he charges me for 2 suits even if I bought them both at the same time. Under the present system, each doctor has a certain amount of overhead charges to meet. It is a case therefore that you will have to make so many calls per day in order to meet this overhead. Each individual patient can only be allotted a certain amount of time whether or not that is sufficient to make the proper examination; which explains many of the errors of omission of which patients complain, and which I have seen made, and which I myself have made. My suggestion, for the correction of this evil, is that the family physician and the internist *charge on a time basis and not on the per call basis*. By this method of charging, better medical service can be rendered because sufficient time to make a thorough and proper examination can be allotted to each patient.

In conclusion, let me urge that all your dealings with your individual patients should be guided by the highest ideals and the best traditions of the medical profession.

RELATION OF DOCTOR TO FELLOW PRACTITIONERS

Dr. O. R. Blanchard: It is nearly 42 years since I joined the Staff of St. Francis Hospital. In all those years, my associates have been largely of my profession. I had rather go on a hunting trip, a fishing trip, or spend an evening in our home, or another home, with members of my profession than with other persons. I have lived to be fairly old, but my life has remained young because of associations in our doctor's room in the hospital, our staff meetings, and occasional dinners with my professional brethren. Other physicians have often told me of their similar feelings. I have always made a specialty of associating with young doctors.

I would not be here tonight if it were not for these "Fellow Practitioners", and they are very real. As I sit in my library at night, I look forward to seeing and talking with those whom I shall meet tomorrow, and I also dream of those who have "crept silently to rest". "So many memories crowd upon my brain, so many ghosts are in the wooded plane."

If I have described my attitude correctly, then I should be capable of giving at least a little good advice to my Fellow Practitioners about what should be our relations. First, I could sum up the whole matter in the quotation, "To thine own self be true, thou canst not then be false to any man." Second, do not depend on anybody in the profession to make your life a success. "The master word is 'work'", said Osler, and it is. Do not ask, or expect, favors for yourself from any other member, but once you have an opportunity, and you will have, to serve him, make your service so efficient that it will be a *favor to him* to have your service. I have such ones, who are very indis-

pensable to me. I resolved, when I began practice, that I would never speak ill of a brother practitioner to anybody in or out of my profession. I have, perhaps, through my own weakness broken this resolution, but it has been one of the most satisfactory resolutions that I ever made.

Science is the knowledge you have gained in the study of the observations of facts. Art is the application of that knowledge. Without this Art your scientific knowledge will go for naught. The best equipped man in the science of medicine I ever knew, was a complete failure because he lacked the Art of application.

How are we to acquire this Art? We are like children in our imitations. Your life will be moulded largely by those with whom you associate. There is nothing in our professional knowledge that is hidden. There are no "patents" on our discoveries or accomplishments. Any treatment in medicine or surgery is imparted "without money and without price". It is had for the asking. Let your associates be among those skilled in science and art and you will learn of these; and you will find that it is this getting for yourself and spending for others that will make your life worth living.

You know that criticism against other members of your profession is a criticism of the profession to which you belong. You are merely intimating that you are more perfect than the ones you criticize, and the Lord knows we all have our weaknesses both in our work and in our dispositions.

Life is short, even if the years are more than "three score and ten". If we are forever trying to advance our own interests at the expense of our brothers, if our whole sordid aim is to accumulate more glory and money than another, it may be done, but we will some day feel that we have "bartered away the birthright of a noble heritage".

I believe that there are 31 new members here tonight, and I would like to give you what I consider a master-word to be always carried with you, very near your heart; without it, your professional life will be a lonely disappointment. With it, you will have many to stand with you, to hold up your hands, when the trials of your profession bear the heaviest. That word is *Friendship*, and it makes us Our Brother's Keeper, indeed. I know of no other word that just fits into our relations with each other so well as this word *Friendship*. *He is my friend*. That covers the whole relationship. The only way to become friends is to become acquainted with each other, and the only way we can become acquainted is by meeting each other socially, as well as professionally. Purely medical meetings do not make acquaintances.

In closing, I would like you to keep this motto always in your memory. It is a motto of our Campfire Club; it is, "I will keep the faith though I go empty."

RELATION OF PHYSICIAN TO HOSPITAL

Dr. Frederick J. Quigley: First, let us see if we can give answer to the question: Should hospitals be open to all physicians in a community, so that they may personally treat their own patients in these institutions—"open hospitals"—or should the treatment of patients in hospitals be limited to a selected staff—"closed hospitals"?

In broaching this matter, the speaker realizes he is touching on a very controversial subject; one that, if thrown open for general discussion before any medical group, could well take up an entire evening. Debate would undoubtedly bring out telling argument in support of both parts of the ques-

tion, but would leave it as it now is—one of the perplexing questions of "the relation of physicians to hospitals". Local conditions will doubtless present peculiarities which prevent uniform treatment of the subject. That there are room for, and possibilities of, improvement, the speaker is convinced, and, without attempting to suggest how the conditions may be entirely remedied, offers as his own considered judgment the following principles, to apply in "staffing" a hospital: That hospital privileges be extended to as many qualified physicians of the community, in such manner and degree, as the facilities of the hospital and adequate care of the patients will permit.

If we would bring to bear the collective and sustained interest of organized medicine on this and other problems now pressing for solution, it seems reasonable to suppose that steady improvement would be made toward the amelioration of conditions, unjust at present to the public and the medical profession.

Now let us assume that we are all members of hospital staffs—attending or auxiliary. By reason of appointment to the staff of a hospital, certain relationships are immediately established: to the other members of the staff; to the superintendent; to the auxiliary services; and, last, but not least, the staff relationship to those responsible for the management of the institution; i. e., the Governing Body or Board.

The relationship of the medical staff and governing body or Board of Trustees involves certain responsibilities, some of which are the sole concern of the governing body, and others that are particularly and peculiarly the Staff's responsibilities. There are still others which are the mutual concern of both staff and Trustees. Lastly, there are certain reciprocal responsibilities or obligations that exist, intrinsically, between the staff and the governing body.

Regardless of what our opinions may be as between open or closed staffs, it must be admitted that, in hospitals of 100 or more beds, it is essential for adequate care of the sick; that the professional work be divided into departments or services—such as surgery, medicine, eye, ear, nose and throat, et cetera. Staff organization, such as this, not only gives the best individual treatment to the patient, but permits of the closest coöperative effort—team work—which is so often needed. There should be, of course, a sufficient number of assistants in the different departments or services to adequately care for all patients, and to give opportunity for these younger men of ability to add by training to their clinical knowledge, so that they may be enabled to render better service to their patients in the community, and also that they may become qualified, as exigencies arise, to assume the duties of chiefs of various services. The professional work of the hospital cannot be handled by any element of the organization, other than the medical staff. Staff organization, therefore, is our job, and when lay boards dip into the professional and staff activities of the hospital they immediately impair the efficiency of that staff.

Urban growth, and the advances in methods of diagnosis and treatment, which can only, in many cases, be satisfactorily applied in hospitals, are factors responsible in large measure for the great increase in the number of these institutions in the past 25 years. Hospital architecture has made great strides during that period. Huge impressive edifices of steel and stone and brick rear themselves to the skies. They are splendidly equipped. Excellent nursing and other auxiliary services are

supplied, and render valuable services; yet it is well to remember, and to emphasize, a fact too often forgotten, that not until the *doctor* sets his foot into this magnificent building does it become a *hospital*. So he and his confrères composing the medical staff represent the *one indispensable element* of a hospital.

It is a curious thing—but an indubitable fact—that the more one gives thought to hospital organization, the more one realizes that there is one unit and one only for measuring and evaluating the efficiency of a hospital, viz: the sick patient in that institution. He is the hub from and to which all the spokes in the wheel radiate. He is the yard-stick with which every department in a hospital can and should be measured. Therefore, it is the duty of every hospital to continually improve its management, to the end that every service may be rendered to the sick patient which scientific knowledge and the resources of the institution can afford.

Granting the above premise, and that no essential curtailment of proper and complete service to the sick in hospitals should be effected or permitted, even in this time of widespread economic depression, the public, nevertheless, is now interesting itself in the cost of government—national, state, county and municipal—and is beginning to realize the tremendous increase in these costs in recent years. This subject is, today, receiving the attention and earnest consideration of a large mass of the citizenship, which heretofore, has taken but slight interest in the matter.

An increasingly larger number of the population of the state and nation is being cared for in institutions. Hence, it is in the interests of all citizens—of all taxpayers—to study this question carefully, to the end that intelligent opinion may be made as to whether it is possible to provide adequate hospitalization and, at the same time, without in anywise impairing the efficiency of this service, to render it at a lesser cost. The cost of hospitalization is steadily mounting—some of it necessary and inescapable. But the question the taxpayer should ask himself today is—whether it would be possible by a change of method or policy to relieve him in some measure of this steadily increasing expense? We medical men believe it can—and with benefit alike to the public and the profession.

Every member of the medical staff, like every other citizen, pays his proportionate share in taxes for the support of those hospitals. But, in addition, he imposes upon himself and pays an added tax—in the valuable professional services that he renders gratuitously to the sick in hospitals.

It is a curious fact—and it is a fact—that many people even today believe that doctors who are on the staffs of hospitals are paid a salary for the services they render. They do not know that staff physicians receive no compensation for the care and treatment of patients in the wards of hospitals. This amount of free service rendered by physicians in the hospitals of this state alone, each year runs into millions of dollars, and constitutes the additional tax that I referred to a moment ago, that the profession bears over and above what he is obliged to pay as an ordinary taxpayer.

The practice of medicine has handed down through the ages a splendid heritage—a heritage which it has proudly and gladly clung to; viz, the right to treat the poor, free. Notice that I have used and emphasized the words the *right* to treat the poor, free—I feel sure that the vast majority of the profession, today, is desirous and willing to treat the poor, free. However, this we would like

to have the public understand: The medical profession is under no moral or legal obligation to treat anyone for nothing—that is, without compensation. And if we are to continue in a position to treat the poor free, and are under no obligation so to do, then the profession should, in justice to itself, decide to whom it will extend charity.

At this time when everyone is suffering, in some degree, as a result of the universal depression, it could be hardly thought likely that the general public would be particularly interested in the financial plight of the medical profession. It is a fact, however, that the incomes of physicians have decreased from 30 to 50%, in the past 2 years.

Aside from the injustice done to physicians, by reason of promiscuous free service in hospitals to those able to pay for medical service, what should interest the average taxpayer is, that a large proportion of the self-respecting citizenship paying their way, many of whom are in no better financial condition than some of their neighbors who are receiving free hospitalization, are actually paying the hospital maintenance cost of these self-same neighbors. This unjust and unjustifiable cost is reflected in their tax bills, or, in the case of semi-private institutions, in the added donations which they are called upon to make toward the support of these institutions.

To be designated as Class A, a hospital must maintain certain minimum standards, required by the American College of Surgeons. To get interns, they must conform to certain regulations laid down by the Council on Medical Education of the American Medical Association and the State Board of Medical Examiners. To inaugurate and maintain a training school for nurses, they must comply with the standards and regulations of the State Board of Nursing Examiners. Has not the time now arrived when the principal cog in the hospital machine—the medical staff—should and must get up certain standards which shall govern in the relation of the medical profession to the hospitals? There is no more pressing problem facing organized medicine. Let us solve it.

RELATION OF DOCTOR TO MEDICAL SOCIETY

Dr. C. B. Kelley: The Hudson County Medical Society is composed of women physicians as well as men; no color line is drawn and in consequence the black man is as welcome as the white: Jews and Christians are on our roster; physicians of all shades of political belief are found in our ranks. This rather diversified membership is all drawn together by the common bond of Education.

Because education has been the bond the union has been a loose one. Education makes for individual thinking and individual thinking, in turn, makes for vast differences of opinion. Because we have been individualists, we have been unable to assume our proper leadership in the great big problems of public health.

Individual thinking may have been quite all right in the days when the Doctor was busily engaged in the job of stamping out sickness in the individual patient, but in this day of preventive medicine and group practice and corporate practice, it is time for well organized and well led collective thinking and *acting*. That organization and leadership must be from our own ranks. Physicians must cease being individualists and must become class conscious: class conscious of the vast power possessed by a united profession.

In this awakening of Class Consciousness, what does the physician owe the County Society and

what does the County Society owe the physician? The debts are reciprocal.

The society first owes an invitation to every reputable physician to join and every reputable physician owes it to his fellow practitioners to become a member of the society.

When a physician has joined the society he is owed a welcome and tonight's gathering is a starter of what I hope will be continued.

The member owes the society attendance at the meetings. He owes an interest in the proceedings of the meeting, and he owes an expression of his opinions to his fellow members. He owes an acquiescence to the will of the majority, even though this means submerging individual ideas.

The society, as a whole, owes to the individual member, a full publicity of all society matters. The County Medical Society should be the nearest approach possible to a true democracy. The society owes an opportunity to the members to meet and freely discuss matters of mutual interest. It owes a well organized and well led militancy.

Only in union is there strength. We must become class conscious and insist upon our just dues. What the member owes the society and what the society owes the member is the same thing: *Loyalty* to the expressed wishes of the majority.

Kipling, in his *Law of the Jungle*, definitely shows the rights, privileges and duties of the different individuals in the group but stresses throughout that, while the individual has these rights and privileges, they are subservient to his duty to the group.

"Now these are the Laws of the Jungle, and many and mighty are they:

But the head and the hoof of the Law and the hump and the Haunch is—*Obeys!*"

In my opinion, Kipling's words have a direct application to our society. As individuals we all have our rights and privileges, but once a majority has spoken, the individual must obey. Loyalty of the individual to the group and Loyalty of the group to the individual should be our slogan.

"Now this is the Law of the Jungle as old and as true as the sky;

And the ones that shall keep it may prosper, and the one that shall break it must die.

As the creeper that girdles the tree trunk, the Law runneth forward and back;

For the strength of the Pack is the Wolf, and the strength of the Wolf is the Pack."

An Additional Proposition

A paper from Dr. Schwarz, concerning another County Society matter, seems to fit so well here that the Editor attaches it to this report.

JUNIOR AND PROBATIONARY MEMBERSHIP; A UNIFORM PLAN

Berthold T. D. Schwarz, M.D.

The purpose of a Membership Committee is, in most County Medical Societies, specifically to induce eligible physicians to join the society, and those who are members to remain. The word *induce* suggests that there is something the society can offer that is not available to those who are not and cannot be members. It has been repeatedly said, by many in and outside of the membership, that the society has contributed nothing of substantial benefit to its members. This is

clearly illustrated, they say, by the State Society feeling the need to issue a Primer explaining why the doctor should belong to the local County Medical Society, and despite the fact that this Primer has been quite extensively distributed to combat this prevailing opinion, the Primer is commonly regarded as a very unconvincing argument for affiliating with or remaining with the society. After all, a lot of words, no matter how well they may be grouped together, or how pleasing they may be to the ear or eye, do not constitute an effective reason to urge one to become or remain a member. Promises are often mirages. Inducements should be real, and if they are not present, it is about time they should be created.

Until recently, it has been said that soliciting members for the society, particularly during drives, is more suggestive of a drag-net, set for those who are not members, than a selective procedure. To say this, is not to direct criticism against previous committees, because they reflected, as they should, the attitude of the active majority at that time. One must admit that unless physicians grasp the opportunity to become associated, they have no means of knowing one another. Only 2 weeks ago, 2 of our censors stated that they were not endorsing the application of a prospective member, because he was unknown to them, and their inquiries revealed that he was, practically, a stranger to his sponsors. How can we intelligently select our members by such a procedure? An Associate-membership, if established, will solve this problem.

Some members who have come into the society, prior to very recent times, have stated they felt very much as strangers, and the frigid disregard of our Society, for its new members, resulted in a feeling of disgust and reticence, that should, instead, have been capitalized into cordiality, wider acquaintance, and enthusiasm. This, the Membership Committee in Hudson County has now overcome by a plan that provided for the introduction, and cultivation of the friendship, of its novitiates, and by a periodic *Induction Dinner* for new members, at which time the aims and purposes of organized medicine were set forth by 5 Past-Presidents and a Guest Speaker, in a Formal Ceremony conducted by the Chairman of the Membership Committee.

The details of this induction plan, as worked out with the proposed *Associate Membership* will be, in effect, a 2-year post-graduate course in medical economics, professional relations, and organization. It is not necessary for anyone to say that the meanest form of *state medicine* is staring the medical profession of Hudson County in its face. It is only a matter of time when it may reach you. You are farther removed, but as the conflagration in the World War finally brought into action almost all the world, so will this problem of *state medicine* eventually reach the counties which now imagine themselves to be immune from its onslaught. We now realize that we must organize effectively. We must offer inducements to secure members and make it really worth while for them to belong to their County Medical Society. Anything that is easy to get is considered of small value. We are welding a series of new links for our chain to salvage medical practice. One of those links is the question of an additional form of membership, call it by whatever name you care to, but for the sake of simplicity we are calling it *associate membership*; i. e., a junior or probationary membership, which we have tentatively decided shall be of 2 years duration. All accepted candidates will become, first, *Associates*, but will have all the rights

and privileges of Members, except the right to vote and hold office. At the expiration of their Associate-Membership, the Society should be in a far better position to know just who is being taken into its ranks as *full members*. Because the Associate Membership dues are proposed as \$5, we feel that we will be able to draw into our ranks, immediately, the new licenciates, so that they may learn by first-hand contact the problems of the medical profession, and not become *free lances* or *outcasts* because of an apparently prohibitive regular membership charge.

We are also very much interested in setting up a barrier against those members of the medical profession who may come from elsewhere, with an ulterior motive to capitalize on their foreignness because of the unfortunate circumstances of a weakly organized and, therefore, unrecognized medical profession in the county. We want no importations of men who come here purely for the purpose of displacing competent members of the medical profession. We believe the Hudson County Medical Society, as a representative group of medical men, has the right to be consulted as to appointments having to do with public welfare, the same as we recognize the principle that the Medical Staff Members of any Hospital should have full right of advice and council concerning the appointment of men to their medical staff. We believe that any man who comes from foreign territory and is willing to have his application take the regular course of *Associate-Member* to *Active-Member* is probably a suitable candidate for County Society membership.

Under the Constitution and By-Laws of our own Hudson County Medical Society, and our allied State and National Organizations, the county society has a perfect right to take into membership anybody, how and when it pleases, providing it does not conflict with our Constitution and By-Laws. The Judicial Councilors in their report to the House of Delegates of the American Medical Association, page 55, in the March 1932, A. M. A. Bulletin, define the word *eligible*, making it clear that the Society is not compelled or obligated to elect any applicant to membership. The report also states that "no county society is compelled or obligated to accept to its own membership a transfer from another county society unless such a transfer card is given validity as an authorization for election by expressed provisions of the laws of the *State Society* and the *County Society* concerned". The County and State Society By-Laws distinctly say that the only concession given a transfer is that he may be elected by a majority vote, while a 2/3 vote is necessary to elect a new member.

Dual forms of membership are well recognized by our societies, as is evidenced by the fact that the following counties have 2 forms—*regular* and *honorary*: Burlington, Essex, Middlesex, Gloucester, Camden, Cumberland and Monmouth, and the first named 2 of this group are contemplating creating an *Associate Membership*. Atlantic, Mercer and Bergen Counties have *Regular* and *Associate*, and some of them have *Honorary*, and in addition, Bergen County has a *Junior Membership*, giving it 4 types. Only 3 counties report one form only—Union, Morris and Salem.

The Hudson County Medical Society proposes to offer an amendment to the By-Laws of the State Society, that an additional uniform plan of membership, known as an *Associate-Membership*, be officially recognized by the State Society, so that members of this class will be accorded the same

privileges by the State as by the County Organizations, and that the amount of dues receivable by the State Medical Society for this class of members shall be kept down to the lowest possible cost, consistent with the cost of a subscription to the State Medical Journal and other absolute organizational requirements. This would leave free, to each society, the right to create such a membership at will, to determine the duration of such membership, and to designate the amount of dues, either at or above the minimal dues set by the State Society and thus give to each individual County Society a greater opportunity to solve its own peculiar problems as necessity arises.

May not we recall the sentiments of Stephen Decatur, and paraphrase the motto of this hero of Tripoli, by making our motto: "Our profession, in her intercourse with those outside may she always be right, but right or wrong, our Profession."

State Health Department

STATISTICAL REPORT

J. Lynn Mahaffey, M.D., Director of Public Health,
Trenton, N. J.

Decreases in cases of diphtheria, typhoid fever and tuberculosis for 1931, compared with 1930, are reflected in a yearly compilation of reportable diseases by the State Department of Health just made public.

Reportable diseases for 1931 totaled 73,262 as against 68,338 for 1930. Diphtheria cases were reduced from 4162 to 1923, a reduction of 2239; typhoid fever from 334 to 269, a reduction of 65, and tuberculosis from 5306 to 5249, a reduction of 57.

Infantile paralysis cases increased from 59, for 1930, to 975, for 1931.

Statistics announced by the Department:

Disease	1930	1931
Anthrax	4	6
Chickenpox	9,563	12,292
Diphtheria	4,162	1,923
Dysentery	20	24
Encephalitis, lethargic	11	48
Influenza	540	3,472
Malaria	14	7
Measles	24,619	20,262
German measles	5,426	926
Meningitis, epidemic	208	176
Mumps	361	1,993
Ophthalmia neonatorum	43	36
Pneumonia	4,760	5,690
Poliomyelitis	59	975
Rabies	3	0
Scarlet fever	7,620	8,823
Small-pox	1	9
Tetanus	13	12
Trachoma	12	23
Trichinosis	14	15
Tuberculosis	5,306	5,249
Typhlaria	1	1
Typhoid fever	334	269
Paratyphoid fever	13	14
Cyphus fever	2	0
Undulant fever	14	49
Whooping cough	5,215	10,968
Total	68,338	73,262

Communications

SOCIAL INSURANCE: UNDERMINES NATIONAL CHARACTER

Eighth of a series of communications dealing with group health insurance

Edward H. Ochser, M.D.,
Chicago, Illinois

(Continued from July Journal)

Parasitism is today the corroding canker of modern civilization and anything which favors its growth and dissemination should be unequivocally condemned and most vigorously opposed.

The proponents of Compulsory Health Insurance, or National Insurance, as it is called in England, reiterate again and again that these and the dole are totally different. In name and administration, yes; in effect, no. They both encourage people to want something for nothing, or much for little, which in effect makes parasites out of them. Almost endless illustrations supporting the statement that Compulsory Health Insurance and the dole are alike in effect could be produced but one will have to suffice. Liek, in his book, recounts the following experience he had while a Krankenkasse physician in Germany. A middle-aged man came to him for an examination with the view of securing sick benefit. Liek examined the patient carefully; could find nothing the matter with him; in fact, found him an unusually well-developed and robust individual. He told the man the facts and elicited the fact that this man was the only one in his village who did not get some kind of a government stipend, sick benefit or dole or pension, and that everybody was ridiculing him because of this.

No one who is at all familiar with Bernard W. Shaw's writings will ever accuse him of being in favor of the present economic system in England. He has the following to say about the dole: "The Labor Party has just twisted conditions all around. They taxed people who live on unearned income, and create their own leisured class—people who live on the dole. The dole is not much but if you have 4 or 5 in a single family living on dole you have a hostel of leisured people living very well. That must cease."

The whole Social Insurance scheme is based on the ethically indefensible theory that individuals are entitled to things that they have not earned, and, also on the politically unsound doctrine that society owes every citizen a comfortable living whether or not he repays society by doing his fair share of the world's work. Under Compulsory Health Insurance, the individual who works only half-time is entitled to just as much free medical service, and is likely to get much more in sickness benefits than he who works full-time. Not only this; it actually encourages immorality and riotous living, as the following personal experience well illustrates. As a young man I worked 2 seasons in a lumber camp. The camp in which I lived comprised between 32 and 40 men. Of this number, only 1 did not use intoxicating liquor; only 2 did not use tobacco; and 1/2 of the men spent their hard-earned wages either at the saloons in the nearby town or went regularly to the Island, or did both. Those who are familiar with the islands of the upper Mississippi River need no explanation as to why they went there. I wonder how Health Insurance, insuring these men for loss of time and providing free medical care for them,

would have prevented their doing the very things which were the cause of much of their sickness. For my part, I believe that a larger percent of them would have gone to the Island if they had felt that they would be protected against loss of time and that they would receive free medical care if they became sick. Health Insurance would actually have increased not only sickness but immorality as well in this camp.

A recent survey of 5000 students at the University of Minnesota found only 10 (or, 2 per 1000), with positive Wassermann reactions. Careful surveys in various parts of the country indicate that about 3% (or 30 per 1000) of the general population of the United States is syphilitic. A Wassermann examination of 3000 prisoners in the Southern Illinois Penitentiary revealed the fact that 3 in 10 (or 300 per 1000) were syphilitic. This same ratio undoubtedly pertains to the class most criminals come from and raises the average for the general population.

It is a well-known fact that alcoholics and those suffering from venereal diseases are much more liable to loss of time from sickness than are those not so affected. What right has any just government to take of the earnings of the 2 first groups without their consent and give them to the third group? A just and humane government protects the weak from oppression and exploitation by the strong and unscrupulous; but a just and wise government does not penalize the strong, industrious, clean-living and thrifty and favor the weak, lazy, shiftless and immoral. Giving the weak, lazy, and shiftless undue advantage over the strong, industrious, and thrifty actually penalizes and handicaps the latter, interferes with the law "of the survival of the fittest", and must eventually lead to race degeneracy. If the white race persists in this course long enough, the "yellow peril", so often glibly and jokingly mentioned, may become a real menace to western civilization.

All independent writers on the subject state, and even the proponents of Compulsory Health Insurance have to admit, that it has tremendously increased occupational neuroses, and that is just what was to be expected and was expected by those who know human nature and can see just a little further than the ends of their noses.

The following quotation from a paper by William H. Hicks is pertinent—"In accident cases, where the question of compensation is involved, conditioned reflexes are sometimes created by the patient's environment that not only retard recovery but instigate additional symptoms, or may lay the foundation for successful malingering."

One of the worst features of Compulsory Health Insurance is that if continued long enough it will crush out of character the 3 capital I's—Independence, Industry and Integrity. Such schemes are, as Guglielmo Ferrero, the eminent Italian historian, rightly says, "artificial", and "while they tide over trifling evils of the moment, they lay up for the future troubles and difficulties and dangers of infinitely greater gravity."

(To be continued)

VIOLATIONS OF THE MEDICAL PRACTICE ACT

(A Report from Dr. James J. McGuire, Secretary of the State Board of Medical Examiners.)

The following is a report of the Board's activities in enforcing the Medical Practice Act since March 1932:

In March, Louis Kuehn, a barber of Farming-

dale, paid the penalty for practicing medicine without a license.

May 23, Alexander Zabo, who conducted an herb steam bath establishment in New Brunswick, pleaded guilty to the charge of practicing medicine without a license during the course of his trial in the Perth Amboy District Court.

May 23, Samuel A. Weinraub, a druggist, of Jamesburg, pleaded guilty in the Perth Amboy District Court to a charge of practicing medicine without a license.

May 24, Harry Hirschorn, a licensed pharmacist employed by the Schwarz Drug Company of Newark, was found guilty of practicing medicine without a license by the Judge of the First District Court of Newark.

May 24, Charles B. Richardson, a licensed osteopath, of Newark, was found guilty of practicing medicine without a license in that he exceeded his osteopathic license by giving electric treatments. The case was tried in the First District Court of Newark.

May 27, Myron D. Jacoby, of Paterson, paid the penalty for practicing medicine without a license.

June 1, Benjamin Faunce, a druggist, of Riverside, was found guilty of practicing medicine without a license by the Judge of the Mt. Holly District Court.

June 28, Yuk Sun Chin, a Chinese herb doctor, of Hoboken, was found guilty of practicing medicine without a license. The case was tried in the First District Court of Jersey City.

In June, Dominic Corea, of Morristown, paid the penalty for practicing medicine without a license.

In June, Nellie Hotaling, of Plainfield, paid the penalty for practicing medicine without a license.

In June, Isadore M. Greenburg, a druggist, of Newark, paid the penalty for practicing medicine without a license.

June 28, Helen I. Bode, a licensed pharmacist, of New Brunswick, was found guilty of practicing medicine without a license. The case was tried before Judge Goldberger of the Perth Amboy District Court.

July 25, John S. Hussa, an electrotherapist, of Asbury Park, paid the penalty for practicing medicine without a license.

July 25, Frank J. Duffy, who practiced medicine at Belmar, Newark, East Orange and Dover, pleaded guilty in the Court of Common Pleas of Monmouth County to a charge of practicing medicine without a license.

July 25, Mary Reed, owner of the Reed Maternity Hospital of Highlands, pleaded guilty before the Judge of the Court of Common Pleas of Monmouth County to a charge of practicing medicine without a license.

July 25, Abner H. West, formerly of Keyport, was found guilty of practicing medicine without a license by the Judge of the Court of Common Pleas of Monmouth County.

AMERICAN PUBLIC HEALTH ASSOCIATION MEETING

The Sixty-First Annual Meeting of the American Public Health Association will be held in Washington, D. C., October 24-27, with headquarters at the Willard Hotel. As is generally true of conventions held in the National Capital, this one will no doubt be one of the outstanding conferences of the Association. Washington offers that rare combination of attractions, both scientific and other, that makes for truly successful conventions.

The American Public Health Association occu-

pies a unique place in the public health world. It is the corporate body of all the public health workers of the country. It is their organization, their clearing house, their source of information, their spokesman and advocate of sound working principles and standards in public health service, their avenue of personal contacts so essential to individual growth and advancement, and their inspiration to keep going. The Association represents the public health workers of the country and through them the trend, the quality and the progress of the health of the nation.

Other Health Organizations recognize the value of close contact with this Association. They generally choose the same time and place for their annual conferences. This year the American Social Hygiene Association, American Association of School Physicians, International Society of Medical Health Officers, Conference of State Laboratory Directors, Conference of State Sanitary Engineers, and the Association of Women in Public Health, will hold their conferences in Washington at or about the same time.

The Association of School Physicians will hold its meetings on Friday, Saturday and Sunday prior to October 24. This Association will also meet in joint session with the Child Hygiene and Public Health Nursing sections for one or more programs. The State Sanitary Engineers will meet on Friday, Saturday and Monday for their own conferences and then join with the Public Health Engineering Section of the Association.

The Public Health Education Section is offering a new feature this year. This section will conduct an Institute, arranged for Saturday and Sunday, October 22 and 23. Students will be drawn from the Health Education workers employed by official and non-official agencies. The Instructors will be chosen from among those who have had practical experience in Health Education work in Health Departments, in public schools and other organizations. Short and intensive courses in the philosophy and principles of Health Education will be given and practical suggestions offered for organizing Health Education programs.

The Industrial Hygiene Section is planning a special exhibit, indicating the special hazards, problems and general progress in preventive medicine in industry. This exhibit will be one of the best of its kind ever presented at a convention of the American Public Health Association.

The scientific character of the program is so well known that it does not need special comment here. One session will be devoted to the important subject of mental hygiene. The Committee on Training and Personnel will sponsor a luncheon at which the training of engineers, nurses and health officers will be discussed. Diphtheria will be discussed at another luncheon. There will be symposiums on air hygiene; incidence, identification and significance of bacterial carriers; standard methods; bacterial dissociation; vital statistics; registration problems; and the participation of the medical profession in public health work. Altogether the scientific program promises to be unusually good.

The entertainment attractions in and around Washington do not need emphasis. In addition to specially planned sight-seeing tours and trips to places of scientific interest, public health workers will find abundant opportunity to satisfy their desire for going places and seeing things in Washington. There are literally hundreds of unusual developments and places of interest. Washington is noted for its beautiful memorial shrines, its parks and gardens, its monumental buildings and

objects of scientific and historic interest. It is a mecca for tourists and visitors from every section in the country.

Public health workers are urged to make their hotel reservations early so that they will be assured of adequate accommodations.

Public Relations

PRINCIPLES TO GUIDE PHYSICIANS IN PUBLIC RELATIONS ADOPTED IN NEW YORK CITY

The New York Academy of Medicine and the New York County Medical Society have recently approved and published in the Bulletin of the Academy a set of principles to serve as a guide to physicians in their contact with the public through the press, platform, and the radio.

A foreword to these principles explains that they are presented more to aid their memberships in knowing the course to be followed in any given case, than with the intention of making fixed rules to which strict adherence must be demanded. It is their desire to be helpful and coöperate rather than disciplinary. The authors ask the coöperation of their associates in the hope that the principles contained in the following paragraphs will be an aid to them and that, with this aid, occasion for taking cognizance of unethical publicity will not arise.

The present tendencies in social and economic life have made it desirable that the medical profession, both as an aggregate body and through its individual members, should become more articulate in its relation to the public.

However, this being something of a departure, it is necessary that a working set of principles be formulated to guide physicians in their public contact with the community, to the end that the best interests of the community be served and that ethics be not violated.

In considering the common avenues through which the profession and individual physicians may address the public—namely, the press, the radio, the public platform, and popular publications—we find 3 possible types of approach. These are publicity, propaganda, and public health education.

PUBLICITY

Publicity we witness in the medical world under 2 aspects. In one it gives due public notice of events which constitute legitimate news, such, for example, as the election of new officers in a medical organization; the opening of a new hospital; the award of a prize for distinction in medicine and the like. Such publicity is legitimate and desirable, and the use of a physician's name in this connection is not reprehensible.

There is, however, another form of publicity unfortunately employed by a small section of the medical world, which has for its aim the exploitation or advertisement of an individual through mention of his name in the public press.

In such publicity, the comings and goings of the individual are featured, his connections, achievements, and honors are mentioned, and he is thereby deliberately and often without any warrant given undue prominence in the public eye. This form of publicity is objectionable, because its aim is reprehensible and the effect upon the public and upon the profession will be deleterious. This type of publicity among physicians cannot be countenanced.

PROPAGANDA

Propaganda has for its main objectives the arousing of public interest in supporting and acting on health matters.

In propaganda, emphasis is placed on some matter of public health interest and only incidentally upon the physicians connected with it. Tuberculosis prevention, cancer control, diphtheria prevention, are legitimate public health items for propaganda. The appearance of physicians' names in connection with such agitations is by the exigencies of press practices necessary and allowable.

PUBLIC HEALTH EDUCATION

Public health education differs from publicity and propaganda by the nature of its content. A statement, for example, that measles is a much neglected and dangerous disease, made by Dr. Jones, may serve as a typical example of a public health education message. Such a statement should not give special prominence to its maker. On the other hand, the statement is given impressiveness and authoritativeness when emanating from a representative physician or from an official medical body. Such a physician speaks not for himself but for the profession. He serves merely as the mouthpiece through which is expressed a fact universally agreed upon by physicians.

RADIO BROADCASTING

The radio presents a number of singular problems which need individual consideration. It is highly desirable that the medical profession should take advantage of the opportunities for constructive propaganda and for health education presented by the radio. And yet the radio is a medium in which the personality of the speaker, understood in its widest implications, counts for much. Anonymity on the radio is, therefore, incongruous. A physician making an address on the radio must of necessity be introduced by name. More than that, to establish his right to speak, his standing or connections, educational or associational, must be given.

All of these requirements can be fulfilled without violence to good taste or ethical procedure. The speaker's name may be given by the announcer without adorning and superlative references to his abilities of achievements. "Dr. John Jones, Clinical Professor of Medicine at the X. Y. Z. University" will suffice as an introduction. Dr. John Jones, who is a practicing physician, should not be introduced as an internationally famous authority, etc.

In the body of the radio paper, references to the person of the speaker, his singular achievements, unique and outstanding practices, should be kept down to an absolute minimum. In theory, the physician speaking on the radio is the vocal representative of the medical profession addressing the public. He brings to the public the fruits of many men's labors. In this, he is the custodian and administrator of the wealth accumulated by the scientific endeavors of the profession. His personal interests and individual convictions must be placed secondary to the interests and dominant convictions of the profession. There are proper channels provided for the advancement of a physician's medical ideas.

It is desirable that talks over the radio by physicians should be given under the auspices of the designated committees of the New York Academy of Medicine and of the Medical Society of the County of New York.

Commercial organizations may purchase time "on the air" with increasing frequency in order to

procure good will, and use it for broadcasting public health information. Frequently, physicians are employed to compose and deliver such broadcasts.

Provided that the commercial organization is of reputable standing, there is no objection to physicians' accepting such employment. A physician must not, however, make his address an endorsement or testimonial for the product or products of the organization on whose time the broadcast is given.

In order to safeguard himself and the profession, when such employment is offered him, a physician should confer with the Medical Information Bureau, both as to the standing of the commercial organization with which he is to make a connection and the contents of the paper or papers he proposes to broadcast.

It is also important that the announcer's continuity should be acceptable. No exaggerated or unwarranted claims should be allowed, nor should the announcer be permitted to imply that the speaker endorses the commercial organization or its products.

MAGAZINES AND PERIODICALS

Articles written by physicians for magazines on medical topics affecting the profession should be subject to republication review by the local medical organization.

Woman's Auxiliary

MORE ABOUT HAY-FEVER

Time is not far when the goldenrod will be lifting its gleaming head to render gay the countryside and pollenize the nose of the hay-fever addict. Not yet has the ragweed begun to scatter its sneeze powder along the summer breeze, but the hay-feverites are already sneeze-conscious. Some of the more susceptible have even begun saluting the dawn, the noontide and the evening. There are other agencies than the best known and most notorious.

The hay-fever season, indeed, may be regarded as in partial, though not full, swing. Not so long ago it was thought the only available safeguards were to keep away from goldenrod or go to some place whose soil is inhospitable to that decorative but irritating plant, both or either. But those simpler days have passed.

Every summer, practically, we learn of new instrumentalities through which susceptible membrane is dusted. Besides goldenrod and ragweed there are other common growths, weeds and grasses whose pollen is as capable of starting the whooping chorus. Several varieties of tree have been considered by science and found guilty as fomenters of hay-fever. Dust in the hair of animals is an active irritant. Habitual sufferers from hay-fever should be chary about fondling their pet dogs and cats. It is a good idea, probably, to keep away, as well, from squirrels, rabbits, wombats, laughing hyenas and gnus.

All in all, the hay-fever victim's lot is not a happy one. He can avoid all the known causes of this disease and promptly fall victim to one which has not yet been identified. If he lives in Newark, or other large city, he can see the Department of Health about a little jolt of immunizing magoozelum. Or, his own physician no doubt can oblige him, wherever he resides. Favorable reports on the treatment indicate this is the most advisable course of all.

County Society Reports

CUMBERLAND COUNTY

E. S. Corson, M.D., Reporter

Dr. Reba Lloyd opened the doors of her hospitable sanatorium, Ivy Manor, Jericho, on July 12, to entertain the members of the Cumberland County Medical Society, and, according to one member, the weather was especially auspicious to present the Manor in all its enticing beauty. The ancient trees surrounding the old Colonial mansion, the spacious lawns and drives, the farm and its buildings, all bespoke the praise of their caretakers.

The inside of the Manor was a reflection of surroundings. The scientific management, combined with the home touch, made its cozy nooks and spacious verandas a haven for tired nerves and weary bodies. The doctors speedily reacted to the environment and many a "raveled sleeve of care was knitted up" and the meeting of old friends was expressed in the spirit of bon vivant and camaraderie.

Dr. Frank Sheppard, of Millville, presided so graciously that everybody settled back into their comfortable chairs to give entire attention to the proceedings.

Dr. E. S. Corson gave an extended review of the life of Dr. T. J. Smith, pioneer and patriarch of the society. He pioneered in the establishment of the New Jersey Epileptic Colony at Skillman, the foundations of the Bridgeton Hospital, the Training School at Vineland, the Cumberland County Hospital for the Insane and South Jersey Institute. Dr. Smith was the patriarch of the medical profession in New Jersey, a past president of the State Society and trustee. His civic and business interests were cosmopolitan. His devotion to his church and Bible was unique. "His exit was like that of the patriarch of old", concluded Dr. Corson. "He was not, for God took him."

Dr. Jesse O. Arnold, of Temple University, Philadelphia, made an able address entitled "Treatment of Eclampsia", presenting charts and case histories to prove his statements. A full and free discussion was carried on after the lecture and it was agreed by the physicians that the theory, if true, was epoch-making.

After adjournment of the formal meeting, Dr. Lloyd graciously escorted her guests into the spacious dining room, the members of her family agreeably assisting in dispensing hospitality. There was a feast of good things of this bountiful season and the efficient catering added to the zest of the occasion, the excellent viands bringing that satisfying sense of well-being productive of happy social intercourse.

There were many visitors from Philadelphia and the counties adjoining Cumberland.

HUNTERDON COUNTY

Barclay S. Fuhrmann, M.D., Secretary

The Hunterdon County Component Medical Society held its Summer Meeting at Glen Gardner, on July 26.

The meeting was held at the New Jersey State Sanatorium for Tuberculosis and we were the guests of Samuel B. English, M.D., Superintendent, who entertained us at dinner.

The routine business was quickly dispensed with

and Dr. Howard A. Knox, of Hampton, N. J., was unanimously elected as a member of the society. It was with regret that we granted the requests of Drs. L. T. Salmon and L. C. Williams for demits from the society.

The following resolution was then presented:

Whereas: Dr. Samuel B. English has been permitted by Divine Providence to labor in our midst for the past 25 years; and

Whereas: Dr. English has been Superintendent of the New Jersey State Sanatorium for Tuberculosis at Glen Gardner during this entire time, and we have seen this institution grow from a very meager beginning until now it is one of the ranking institutions of our country; and

Whereas: This growth has been due to the conscientious labor, unfailing interest, and tireless devotion to the specialty of his choice;

Therefore Be It Resolved: That this society set apart a page in its minutes to commemorate this, the Twenty-Fifth Anniversary of the coming of Dr. English to our midst; and that we tender to him our heartiest congratulations on his successful administration, and pray that he may be spared to us for many years to come.

On motion regularly seconded the resolution was unanimously adopted.

Dr. English was the society's Delegate to the Annual Meeting and he gave a very complete and interesting report.

Dr. Rosenberg, District Health Officer of the State Department of Health, was the essayist of the meeting and gave a very instructive paper on "The Relation of the Physician to the Board of Health". Discussion of this paper brought forth many questions, which were very ably answered by Dr. Rosenberg, relative to the physician's duty under the law.

Dr. A. Haines Lippincott, President of the New Jersey State Medical Society, was present and, after felicitating Dr. English on his successful administration of the Sanatorium during the past 25 years, spoke on the problems of the State Society and emphasized the benefits derived from active auxiliaries.

In a very brief way, Dr. F. G. Scammell advanced the thought that more stress should be laid on the nail-brush as a means of preventing the spread of infectious diseases, calling attention to the fact that as these diseases were more prevalent among children who have the common and hard to prevent habit of putting their fingers in their mouths, he thought there must be some relation between the fingers and the spread of contagion.

Dr. J. Bennett Morrison, Secretary of the State Society, spoke of the developments of the State Society and emphasized the fact of the very successful meeting held this year. He thought that, considering the economic conditions prevailing in the country, it was the best meeting the State Society has ever held.

The meeting was then adjourned and we enjoyed a very fine dinner.

After dinner the committee appointed to arrange a Tuberculosis Institute met with Dr. English and we can announce at this time that such a course of lectures and clinics will be held in October next. As soon as definite arrangements are made, physicians in this and neighboring counties will be notified.

We trust that this Institute will be well attended as it can be arranged only with a great deal of thought and work by those in charge and we owe it to them that their labors will be rewarded.

MONMOUTH COUNTY

Harold A. Kazmann, M.D., Reporter

A meeting of the Monmouth County Medical Society was held on June 29, 1932, at the Fitkin-Morgan Memorial Hospital, with Dr. Stanley Nichols presiding.

Dr. Martin Quirk, former President of the Sussex County Medical Society, was elected to membership.

Dr. William K. Campbell spoke on the pollution of the Shrewsbury River by the Long Branch municipality sewer, and the society voted to send a resolution to the State Board of Health condemning existing conditions along the river and asking for measures to be taken to relieve the pollution. A committee was also appointed by the President to confer with the officials of the city of Long Branch about this.

The program was a rather long one, consisting of moving pictures with sound, given through the courtesy of the Petrolagar Laboratories, on "Vaginal Hysterectomy for Uterine Prolapse".

Dr. Victor Knapp read a paper on the "Clinical Anatomy and Physiology of the Colon". Dr. C. A. Pons spoke of the bacteriology and Dr. W. G. Hermann on the "X-ray Findings in Inflammatory Lesions of the Colon". These papers were followed by a masterly discussion on the clinical side of this subject by Dr. Burrill B. Crohn of New York.

UNION COUNTY

Russell A. Shirrefs, M.D., Reporter

The July meeting of the society was held at the Canoe Brook Club, Summit, on July 13. In the afternoon a number of the members played golf; they and many others enjoyed a good dinner at 7 p. m., and the meeting at 8.30 p. m. had a still larger attendance. In addition to the usual routine business, Dr. E. Hugh Doggett, of Plainfield, was elected to membership. A nominating committee was also selected, consisting of Drs. M. A. Shangle, Elizabeth; C. B. Keeney, Summit; and H. D. Corbusier, Plainfield.

President Hubbard introduced the speaker of the evening, Dr. Edgar Burke, of the Jersey City Medical Center, whose talk on "Unusual Abdominal Operations" was illustrated by beautiful original colored pictures which he had painted himself. These were shown through a reflectoscope and added much to the interest of the lecture. The paper was discussed by Drs. Shangle, Moister, Hubbard, Williams and Bowles.

Dr. Joseph B. Harrison, of Westfield, was tendered an ovation when he gave his report as Delegate to the recent Convention of the State Society; for, in addition to his excellent report, it was learned that Dr. Harrison had not missed an annual meeting of the State Society for 55 years, a record of faithful attendance and devoted service which we believe to be unequalled.

Obituaries

Memorial to Dr. Wellington Campbell

Submitted to the Journal by
Elwood H. Macpherson, M.D.

The passing of Dr. Wellington Campbell has removed from our midst that kind and jovial personality who had so much become an integral part of our community that there is not a person, from

the youngest child to the oldest inhabitant, who does not grieve over his departing as the suffering of a personal loss. The end came near the break of day on Friday, June 17, 1932, at the Orange Memorial Hospital, following an operation which became complicated by bronchopneumonia.

Dr. Wellington Campbell was born in Millburn, September 27, 1852, the son of the late Wellington Campbell and Mary Tenbrook Wade. He spent 7 years at the various schools in Millburn, Short Hills, Summit and Chatham, but much of his education was gained by private tutorage at his home, one of his tutors having been the late Thomas Lounsbury, Professor Emeritus of Yale. He was a graduate of Yale, Class of '74, upon completion of a 4-year academic course. Then, entering the College of Physicians and Surgeons, in New York City, he was graduated with the degree of Doctor of Medicine in 1877. It is thought by his family that this is the first year since graduation that he has been unable to attend his Yale Class Reunion.

He started the practice of medicine at North Branford, Connecticut, in 1878, and remained there until 1881, when he moved to Millburn, where he had since resided. On February 8, 1888, Dr. Campbell married Miss Carolyn S. Foote, of Northford, Connecticut, who died in 1912.

Dr. Campbell was a member of the Township Committee of Millburn, from 1904 to 1908, and again from 1915 to 1929; Chairman of that Committee in 1905; and Treasurer of the Township in 1906-7. Before retirement as one of the Town Fathers, he was Chairman of the Road Committee, but his greatest civic accomplishment was his work on the Trunk Sewerage System, to which he had been appointed a representative of Millburn, and he served as Health Officer of Millburn from 1907 until the time of his death.

Dr. Campbell was one of the Founders of the Orange Mountain Medical Society and was one of the 3 Original Members present at the 500th Meeting, which was held at the Baltusrol Country Club on April 17, 1931. He was also a Founder of the Summit Medical Society and was one of the 3 Charter Members present when the 25th Anniversary of the Society was held on April 15, 1930, at the home of Dr. Lawrence, in Summit, where it had first met 25 years previously.

Dr. Campbell completed his 50th year in the practice of medicine in 1902 and a dinner was given in his honor, at Wallace Pines, by the Summit Medical Society. He was also a member of the Relief Fund for Widows and Orphans of Physicians of New Jersey.

The high esteem in which Dr. Campbell was held by the medical profession was well exemplified in his elevation, for the second time, to the presidency of the Summit Medical Society, for the season which ended in May. He was fully alert to all recent advances in medicine, and was rarely absent from the scientific sessions of the society. The cheerful voice and supreme optimism of Dr. Campbell always lightened the heavy hearts of those who suffered and were in distress. When he left the sick room, the echoes of his encouraging words brought renewed hope and kindled many a flickering soul with a new flame of life to throw off the ravages of disease. His interests were universal. His acquaintances extended to all the walks of life. "To know him was to love him." His friendship was a treasured possession. His life has given us much. Time alone can mellow the sorrow of his passing from a life well and faithfully lived.

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RELATIONSHIP OF RINGWORM OF THE FEET AND GROIN

CEDRIC C. CARPENTER, M. D.,
Summit, N. J.

One of the most common of all skin diseases seen by the practitioner is ringworm. Its rapid and universal dissemination has elevated it to the position of the second most frequent dermatosis. The finding of the fungus in the many areas of the body in which this disease occurs is very uncertain but, particularly in the groin, is it exceedingly difficult to recover the organisms. There have been many statistical reports in recent journals concerning the number of positive results one may hope to get by the microscope. Dr. Light has published one of the largest series, and in 773 examinations from various body localities, he found that the average recovery was only 25%. After examining 530 different areas by the same technic, I obtained identical results. However, this figure is double that of recoveries from the groin, and so the purpose of this paper is to discuss the relationship between this affection and a concurrent ringworm of the feet, particularly with regard to establishing diagnosis of the atypical chronic crural eruptions.

Microscopic technic: The area to be examined is thoroughly cleansed with carbon tetrachloride and alcohol, to remove any superficial fatty substances. Scales or the tops of vesicles are removed from the affected patch and placed on a clean slide in a drop of 30% potassium hydroxide. A cover glass is

placed over this preparation and the slide gently heated until the opaque scrapings assume a thin transparent appearance. The cover slip is then gently pressed into close apposition with the slide, so that the scales are flattened as much as possible. The fungi are located with a low-power objective, and positively identified with a high-dry or oil-immersion lens. All examinations were made by myself, and only the long, branching, mycelial forms were recorded as positive. In no instances were the mosaic forms considered.

Cultural methods take from 2 to 6 weeks for the determination of a causative agent, and, in addition, they seldom give further results when a direct examination fails. A comparative series, using material from the same areas, shows that, whereas the cultures were positive in 18%, the microscope discovered fungi in more than 33%.

Technic of cultures: Scrapings are made from the lesions, picking sites that show most activity, placed in a small folded paper or envelop, and left to dry for at least 24 hours. The scales are then transferred to Sabouraud's lactose-agar media and permitted to grow for at least 6 weeks before being discarded as negative.

Considering the causes of the large number of failures, it must be remembered that many of these examinations were made in borderline cases in which the possibility of ringworm had to be considered. In addition, they include many futile searches for mycelia in lesions of the hands, which are now recognized as secondary toxic manifestations (trichophytids) of a focus of ringworm elsewhere on the skin. Many of the patients had been treated

previously by ointments, which resulted not only in destruction of the organism but in a visual interference with proper examination of the suspected scales, as positive results are recorded in 4 of the untreated cases to 1 of those which had previous ointment therapy. The only way in which to account for the small number of positive cultures is that the organisms seen by the microscope may not have been viable.

With this understanding of the difficulties encountered in obtaining laboratory corroboration of the clinical diagnosis of tinea, and with particular reference to its occurrence in the groin, it was thought that, if a relationship to

feet and groin was evident in those patients who had an unquestionable diagnosis of ringworm of the crural area, we next undertook to discover whether this held true for the less typical crural eruptions which had existed over a long period and in which the clinical picture had been changed by prolonged treatment. There was still a strong suspicion that an epidermonycosis might be the underlying basis. Of the 13 studied, 7 had been diagnosed eczema, 4 tinea, and 2 questionable ringworm. The duration of their trouble had been from 5 months to 15 years, with an average for the group of 5½ years. Many of the following physical characteristics were shared in common: involvement of the inside of the thighs, scrotum, and natal cleft, which occurred in the

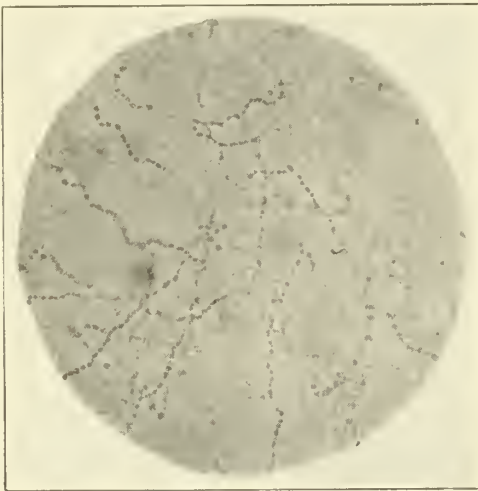


FIG. 1.

Unbroken spore chains of ringworm fungus in a potassium hydroxide preparation. High power magnification.

ringworm of the feet could be proved, it might facilitate diagnosis of a similar condition in the groin. Investigation to accurately determine this theory was started by examining 9 clinically typical eczema marginatum patients on whom the eruption had been present from 1 to 6 weeks. Table I gives the results of these examinations. One of the 2 patients who had clinically negative feet and laboratory negative groins was interesting because he was the only member of this series who had used salve in the crotch and who, in addition, gave a history of using the same towel as a brother who had "foot trouble".

As a connection between infections of the



FIG. 2.

RINGWORM OF THE TOES

(Note characteristic maceration and fissuring in fourth interdigital space of right foot.)

form of thickening, increased pigmentation and scaling, although in only a few was vesiculation present. The groin was extremely itchy and had been treated over a long period in all cases, so it was not at all surprising that just 2 yielded microscopic mycelia; 1 of these was of 10 years' duration and had been diagnosed eczema. A glance at Table 2 shows that all but 2 patients had clinically typical involvement of the feet, and even these were suspicious because of some slight peeling in the fourth interdigital space, but as they had given no symptoms and no microscopic ringworm could be recovered, they were classified as negative.

Analyzing the 22 cases included in the whole

series, we find that in less than 25% could the laboratory find the organism in the groin, but in over 50% organisms were recovered from the feet, the latter region being clinically positive in 82% of the cases.

That this relationship does not exist normally has been shown by large series of observations of students at various colleges in the United States. These reports list incidence of 15%-67% from clinical observations, and correspondingly lower figures where the microscopic or cultural means were used. My control series consisted of 35 patients picked at random from those suffering with unrelated dermatosis; of these, 43% presented clinical

regions, or sharing this and other fomites with some other individual who also has ringworm. This follows Hallow's observations on the spread of the disease in private schools. Williams and Barthel have shown the importance of the toe nails as a source of re-infection of the toes; and a study of the chronic recurring forms of tinea cruris convinces me that the feet serve in the some capacity in re-infecting the groin. In addition, the microscopic and cultural similarity of the organisms from these 2 regions makes this relationship more plausible.

Treatment, then, should not only be directed to the groin but should also include antipara-



FIG. 3.

Ringworm of groin, 7 weeks' duration.



FIG. 4.

Ringworm of groin, 1 year duration.

evidence of ringworm of the feet and in 28% the organisms were recovered.

This relationship has previously been implied by Whitfield and Acton and McGuire. The former called attention to the finding of the *Epidermophyton inguinale* in the eczematoid condition of the extremities, following tinea cruris. I cannot agree with Acton's explanation of the scales falling from the groin and infecting the toes, as it has been my observation that the history was more often that the foot infection antedated the groin involvement; also, ringworm of the toes and feet is 10 times more prevalent than ringworm of the groin.

It is my belief that the foot infection is the primary source, and that the groin is inoculated by using the same towel for these 2

siticide therapy for the toes, and the patient should be warned of the importance of not using the same towel for his feet and groin or sharing bathing articles and clothes with individuals who also suffer from this disease.

CONCLUSIONS

It has been shown that the laboratory diagnosis of generalized ringworm is very poor, but more particularly in the groin is it difficult to recover the fungus. For this purpose, the relationship to a concurrent infection of the feet is of aid in establishing a diagnosis of the less typical chronic crural eruptions which arouse suspicion of tinea as a causative agent. This fact is also of importance in treatment, particularly in prevention of recurrences.

TABLE I

CLINICALLY TYPICAL ACUTE TINEA CRURIS

Feet and groin laboratory positive	3
Feet laboratory positive and groin laboratory negative	3
Feet clinically positive but laboratory negative and groin laboratory negative	1
Feet clinically negative and groin laboratory negative	2
Total	9

TABLE II

CLINICALLY SUSPICIOUS CHRONIC
TINEA CRURIS

Feet and groin laboratory positive	2
Feet laboratory positive and groin laboratory negative	5
Feet clinically positive but laboratory negative and groin laboratory negative	4
Feet clinically negative and groin laboratory negative	2
Total	13

THE FOOT AND ITS RELATION TO
BODILY DISORDERS

ARTHUR D. KURTZ, M.D.,
Philadelphia, Pa.

The human foot is an organ that reacts to either local irritation or systemic disease. In its reaction to local conditions, the effects may be felt in the entire economy; conversely, some systemic disorders are first manifested in the foot and others affect it in their later stages. These facts are so frequently lost sight of that a recapitulation of some of the more important phases of the problem seem to be in order.

Considering surface conditions, varying from the simple benign corn, callus or plantar wart, to the melanotic mole that develops on the sole and later causes death from melanotic sarcomatosis, one may find various reactions. A tender area on the foot first causes pain and later a limp; causing an otherwise healthy, normal individual to become a querulous, irritable nuisance. The mechanism is easily understandable: the attempt to protect the painful area on the sole or elsewhere causes a

change in the normal gait which, in turn, causes a muscular imbalance in the extremity, and the other extremity then suffers because of increased weight-bearing due to an effort at compensation; and this in turn produces imbalance in the body muscles, so that a general malfunction or strain is produced. The pain itself, acting upon the patient's consciousness, brings about changes that vary from slight irritability to intense nervous dysfunction. There is a trite but true proverb that "when your feet hurt, you hurt all over".

In certain cases there may be no surface lesion at first, but rather, a structural change most often referred to as "flat foot". Here again, muscle imbalance is the solution of the varying manifestations that occur both in the feet and general economy. Mere lowering of the arch does not make a diagnosis of "flat foot" tenable, as many low arches cause no pain, whereas normal or high arches may. One may have a purely structural low arch for years, with no discomfort until some other factor begins to operate and pain results; in this instance it is not the flat foot but the added factor that is responsible for the suffering. Acute flat foot is not a foot that has suddenly become flat or collapsed; it is a foot that has been flat and has had an acute arthritis grafted upon its structural change. Traumatic flat foot is not a foot, the arch of which has been suddenly lowered by trauma, for sudden lowering cannot occur unless there have been pathologic changes, usually fracture (either single or multiple). It is a misnomer when used in connection with the deformity which follows a poorly reduced Pott's fracture, and careful analysis will usually show no change in the arch *per se* (unless it existed prior to the injury), but will show a bad pronation at the ankle as the result of improper reduction. The résumé of a case may illustrate the foregoing.

Case 1. The patient was a World War veteran, 28 years old, with flat, rigid, painful feet. As he had been accepted for active service, the possibility of preëxisting flat foot may be dismissed. While loading a transport, a packing case weighing 500 lb. fell and landed on the insteps of both his feet. Six months' confinement in a government hospital failed

to relieve his disability. He was discharged from the service with the statement that he had nothing worse than flat feet, and was given to understand that he was considered a malingerer. X-ray examination showed multiple fractures of the anterior tarsals and the bases of the metatarsals, with consequent welding together of those bones. Naturally, the condition by that time was irremediable.

Arthritis, acute or chronic, engrafted upon feet previously flat, is a widespread source of disability. It is to be remembered that the underlying factor causing the arthritis may react upon periosteum as well as joint structure. In some instances where the first metatarsal-phalangeal joint is involved, the condition seems to be limited to this area, producing hallux rigidus. In some patients its effects are more widespread, producing both periosteal and arthritic changes with loss of flexibility up to absolute rigidity. Cure, or even slight relief, lies in treatment of the underlying arthritic condition and attempted production of flexibility in the foot.

Three cases are quoted, each illustrating one of the phases mentioned.

Case 2. A man, aged 30, in good health so far as he knew, except for a slight urethral discharge diagnosed as "strain", went to bed one evening with no disability. Next morning the feet were so tender and swollen that weight-bearing was impossible. After being told by one physician that he had "rheumatism", and by a second "acute flat foot", he was admitted to a hospital, where a careful history-taking revealed that his flat arches had been present for a number of years, the "strain" proved to be Neisserian, and treatment directed to that resulted in cure.

Case 3. A Jewish man, aged 40, complained of a fairly acute crippling condition in his feet. There was fair flexibility, with acute tenderness on the plantar aspect of the heels, and a radiograph showed bilateral spurs. Further examinations revealed infected teeth and tonsils; also chronic cryptitis of the rectum. The spurs were removed and the various infectious foci eliminated. Cure of the feet resulted. Here, again, the lowered arches were of long standing and had never interfered with his daily duties. In this connec-

tion it may be said that the rectum, as a possible source of focal infection, is more often overlooked than examined. Observations over a period of years, in coöperation with proctologists, have shown that the rectum will cause many disabilities other than those of the feet.

Case 4. A woman, aged 50, suffering for 2 years with painful feet, had been treated for flat feet, while during that period her feet had slowly assumed a change in position until they became badly pronated, flat and fixed. X-ray pictures showed widespread periosteal and joint changes. A gall-bladder condition was found and treated. The acute symptoms subsided but the feet were not amenable to correction.

Circulatory conditions, manifested as Raynaud's, Buerger's or arteriosclerotic are frequent causes of diagnostic errors, principally because they are not given consideration. The circulatory status of every foot should be noted. Particularly is this true in Jewish men in early adult life. A typical instance follows.

Case 5. A Jewish man, aged 30, with structural foot changes, but with good flexibility, complained of acute intermittent pain in both feet. Needless to say, he had been treated for flat feet with no relief. Examination showed lessened pulsation in the dorsalis pedis, with the toes showing congestion after a short period of weight-bearing. Early Buerger's disease was diagnosed and sodium citrate given intravenously. The relief was rapid. It is likely that the lowered arches had existed for a number of years without causing disability, but that the endarteritis caused the pain. It is only too true that the fate of the endarteritic lies in the hands of the physician who sees him early, recognizes the condition, and institutes proper therapy.

Arteriosclerotic changes produce typical foot reactions, characterized by: a feeling of burning, which on palpation show cold feet; enlarged superficial veins; sharp dorsalis pedis pulse, later disappearing; tenderness in the corner of the great toe nail; congestion on weight-bearing; all associated with arteriosclerotic changes elsewhere. Such a patient needs careful watching, and should be warned

never to permit any one to operate for "ingrown nail".

Case 6. A laborer, aged 65, who either never knew or had any reason to know that Prohibition was a national law, developed pain in the feet and was treated for flat feet. Later, the inner corner of the great toe nail became painful and an attempt was made to remove an "ingrown nail" that did not exist. Several days later, the corner of the toe turned black and a consultant was called. The patient was admitted to a hospital, where thorough examination showed a widespread cardiovascular-renal pathology, and while the gangrene of the toe was controlled, death resulted from his arteriosclerotic conditions.

Diabetes and foot ailments form an age-old combination. It is remarkable that foot symptoms are often the first thing that attracts attention to the disease, but experience has proved that a majority of the patients with suppurative callus and chronic sinus formation on the sole of the foot are basically diabetic. Necrosis of the phalanges and metatarsal heads is not unusual, and this may be the symptom for which the physician is originally consulted. A urinalysis with negative findings is only a compromise, and repeated blood-sugar examinations are sometimes needed to establish the diagnosis. Of course, when one sees moist gangrene, suspicion is aroused, but the important point is to discover the diabetes before the gangrene begins.

Tuberculosis may affect the feet either primarily or secondarily. In the first instance the bones are involved (secondary to a process elsewhere in the body, that is not always easy to discover), and we know that tuberculosis of the lungs may give rise to a low-grade toxemia that causes a general muscle weakness. This is evidenced in the foot by lowering of the arch, with fatigue after slight exertion, and pain in the calf of the leg. On several occasions such feet, combined with the general appearance of the patient, have pointed out the necessity for a thorough physical study and consequent recognition of a focus.

All the so-called acute infectious diseases react upon the foot, some through toxemia alone, others by an acute arthritic process. Flat or weak feet, or periostitis of the heels,

will often follow tonsillitis and the influenzal infections.

Another interesting group embraces the "endocrine" cases, and with our present knowledge of the endocrines, it seems justifiable to recognize these cases as of that general origin rather than to attribute them to any one particular gland. They are most often noted in the adolescent or young adult, but women between 30 and 50 years of age are not immune. Foot pain and the menopause are common companions.

Case 7. A girl, aged 18, tall, quite heavy, and somewhat dull mentally, complained of foot pain. Her feet were of the large, flabby type, blue, cold and clammy with mottled skin. There was a *myxedematoid* deposit in the legs and hands. Foot therapy was instituted but patient was also referred to an endocrinologist who confirmed the diagnosis and treated her in conjunction with us. A good result was obtained.

In this connection, a reference to the foot troubles of the obese is in order. Some instances are due to endocrines and others are merely indulgent, but in either case relief of foot trouble depends upon weight reduction, foot therapy in itself being inadequate.

Flat foot in early life is nearly always the result of malnutrition, for the congenital type is far less common than is usually supposed; many cases so classified being actually rachitic in origin. Here again, close attention to the rachitis is far more necessary than good foot therapeutics; experience having taught us that control of the rachitis will produce beneficial changes in the feet.

Cardiovascular-renal disease is most often manifested in the feet as swelling and edema. This is so commonly recognized and sought for, that a word of warning is needed. If there is bilateral swelling with edema, it is probably of constitutional origin. Should the swelling be unilateral, there is probably some other causative factor. Bilateral swelling of the ankles without edema in the legs is practically always the result of a local condition in the ankles or feet.

Among the curiosities of foot diagnosis are the excessively tender toes of the drug addict. This symptom is not present in all cases, but

when found, with no local pathology to explain it, suspicion should be aroused. Mental disorders, with the somatic symptoms referred to the feet instead of the head, chest or abdomen, are among the difficult cases to recognize. When the complaint about the feet is out of proportion to the local pathology, in a person whose reaction pattern is unusual, attention should be paid to the mental status. Samuel D. Gross, in his monumental work on "Surgery", described pain in the heel, without local pathology, as a symptom of hip disease; the pain, instead of being referred in the usual manner to the inner side of the knee, is referred through the sciatic distribution to the tip of the heel. I have observed this on 2 occasions. Ulcers about the malleoli in young colored persons, without any local bone pathology, are significant of sickle-cell anemia.

Sufficient has been said to justify the first paragraph of this paper, and to call attention to the absolute need for more care and attention in the diagnosis of foot complaint. The time when a physician could feel that he had done his full duty in ordering a pair of shoes or some type of arch support, is past. Today, the "foot patient" is entitled to all the skill and modern scientific methods that can be brought to bear upon his condition. A thorough inspection of the *bare* feet is the first step, both when the weight is upon them and when the patient is sitting. Test for the flexibility of the various normal motions of foot and ankle. Look not only *at* the toes but *between* them. Inspect the sole of the foot for callosities or other abnormal changes. Then, order a radiograph taken in 2 planes, the dorso-plantar and the lateral. It is quite surprising to the uninitiated to find how much information may be thus obtained. No radiograph is ever negative. Should there be no bony pathology, it is positive to this fact and should so be regarded. Laboratory studies are next, the blood count being quite important. J. T. Rugh, in his lectures, called attention to the *white cell count*. He interprets anything above 8000 or below 5500 as abnormal and indicative of those low types of infection which so frequently are the underlying factors in arthritic and periosteal irritation. Should such a count be found, one is

justified in searching for a focus of infection. The dentist, laryngologist and urologist will get most of these patients, but other specialists, particularly the proctologist and gastro-enterologist, will often be needed. Blood-sugar estimation and urinalyses are valuable, and, in our experience, far more useful than the Wassermann test. Patients with a relatively high mononuclear count should have a Mantoux or similar test. The muscular weakness accompanying pernicious anemia should not be lost sight of.

When is a diagnosis of flat foot, *per se*, justifiable? When all other conditions have been eliminated. Until that time, changes in the structural form of the foot should be viewed with suspicion, and all possible agencies used to arrive at a diagnosis. Not only is structural form to be considered, but painful symptoms in the feet should make one doubly diligent.

It is unfortunate, but only too true, that the medical attitude toward foot condition is driving away from the medical profession patients who should be theirs. Just as in former years patients who required any physiotherapy drifted to a cultist and were lost, today a general interest in physiotherapy has made certain cults less prosperous than in former years. Will the foot finally arrive at the same position as the mouth? Will the chiropodist become as much of a necessity as the dentist? Will the medical profession finally find it to the physician's advantage to coöperate with the chiropodist, in the same manner as with the dentist? Such a state of affairs would be far preferable to the present neglect of the foot.

EXPERIENCES WITH 610 CASES OF GOITER, WITH SPECIAL REFER- ENCE TO THYROTOXICOSIS

WILLIAM S. WHEELING, M.D.,
Windber, Pa.

For this address I have chosen a subject dear to our entire hospital staff—"Thyrototoxicosis". One of my assistants, Dr. John A.

Orris, collected charts of 500 patients with thyrotoxicosis, operated on at our hospital since 1916.

I want first to warn you that there is nothing fancy about this discussion, nor ultra-scientific, and that none of the cases were obtained from text-books. I am presenting only what a small country hospital has to offer on an important subject.

The cases we are particularly interested in are those where, for some reason, the physicians have let the patients' condition reach a point where decompensation and cardiac failure are faced. As examples, I will recite 2 case histories.

About 5 years ago a patient, 60 years old, came to the Berwind Clinic of the Windber Hospital with the following history: Had been suffering greatly with cardiac symptoms, dyspnea, auricular fibrillation and swollen lower extremities. Her physician advised a trip to Florida, to regain her health. She remained there, in bed, for 3 months; then, by 4 days of a rather perilous journey, she was brought home. On sixth day after leaving Florida, she was brought to our Clinic. Her chief symptoms at this time were shortness of breath, swelling of legs from knees to toes, and a "jumpy" heart. I advised patient's husband to place her under the care of a cardiologist, and, as the man selected coöperated with us, we kept the patient in bed, under treatment with digitalis and Lugol's solution, for 6 weeks. The improvement was remarkable; swelling went down, and shortness of breath and auricular fibrillation improved. Under local anesthesia, the patient's thyroid was then removed. At the time, her normal weight of 166 lb. had been reduced to 108. Basal metabolic rate, taken when she was operated on, was +18. Patient was in hospital 3 weeks, and stood the operation well; she has regained her former weight, and 30 lb. in addition; and the only trouble we have had with her since operation is to control her fear of developing myxedema.

The second patient came to the hospital this year, in about the same condition, and with practically the same history. She was a Slav, about 58. We kept her in the hospital 4 weeks and removed her goiter under local anesthesia.

Today she is doing well and is practically symptom-free.

Here were 2 patients with advanced cardiac decompensation caused by goiter, who would have died without operation. I believe that many cardiac decompensation patients past 50 may be goiter cases. I could recite history after history where patient has suffered with thyroid of these types—adenomatous, cystic and fetal—and slowly developed toxic myocarditis due to some process in which the thyroid gland had played an important part.

The point I wish to bring out is this: don't attempt a goiter operation on such elderly patients without a consultation and a thorough understanding with your internist and cardiologist, especially the latter, to see whether there is a possibility that your patient may be a thyrocardiac. Use every means at your disposal, irrespective of cost, and don't stop at the diagnosis of "decompensation". The patient may be of a type that can be benefited by a thyroidectomy. It is for this class of patient that I am appealing to you. You may miss 9 times out of 10, but your tenth case may be like one or other of the 2 cases just described, and if you make the correct diagnosis, you will have a grateful patient.

You may ask, "Are these hearts not permanently damaged?" and I answer that, not only have the above 2 patients apparently normal hearts, but their chain of symptoms has disappeared. I believe their hearts are permanently damaged, but I have relieved their symptoms and made it possible for them to live comfortably.

It is our duty, after operating on such patients, to follow them up for at least 1 year. We have followed the first patient 5 years.

There are some cases that we have not been quite so fortunate with, but the point I wish to emphasize is that despite the tremendous danger in operating on these patients, the possibility that we could save 1% should make us take the risk, because only under such intensive treatment will that 1% have a chance of living 5 years.

You may say to me that our grouping system is all wrong. We have found no grouping entirely satisfactory. In our 610 cases,

we call 233 toxic hyperplasias, 207 exophthalmic goiter, 149 toxic cyst-adenomas, toxic adenoma and toxic fetal adenoma, and 21 acute hyperthyroidism.

I know some will ask why we do not combine our first and fourth groups. It is my opinion that the acute hyperthyroids belong in a class of their own. They are of the fulminating type and their history is peculiar. We have 2 such patients in the hospital at this writing whose history extends over a period of only 7 weeks prior to admission. Both claim they were all right until then, when suddenly, without warning, they had the following symptoms: nervousness, tachycardia, and jumpy hearts. Both had lost weight. One, a girl, cried a great deal, was unhappy, couldn't get along with her people, and was diagnosed as a case of "nervous break-down". She did not know she had a lump in her neck. The other, a young man, was at a party one night when one of his relatives, a physician of good standing, thought that he noticed something wrong with his eyes and suggested that he come to the hospital. One of these cases we classified as acute exophthalmic goiter and the other as an acute hyperthyroidism. It is our opinion that the toxicity which causes the condition of these 2 patients is an entity, and that brings up a matter which I have never been able to understand. In visiting clinics, all over the world, you will sometimes see a master internist bring in a patient and make a diagnosis of exophthalmus. I don't believe there is such a thing. If a patient has an exophthalmic goiter, with the chain of symptoms described above, and has exophthalmus, then he has an exophthalmic goiter of the fulminating type; but if he has no eye symptoms, I place him in the acute hyperthyroidism class. I think these cases should be studied separately, and distinctly differentiated from what is known as toxic hyperplasia. I have seen cases of both classes so fulminating that the patients have died without an operation. These cases were difficult to handle prior to the use of Lugol's solution. With Lugol's, and complete rest in bed, such patients can be prepared, operated on and cured. In my opinion they are not cases for x-rays or radium.

As for the most common symptoms in our

series of 610 cases, there are 5: fatigue; nervousness; cardiac; metabolic; and psychic. Looking over the charts, we are struck by the fact that in both men and women the symptomatology is almost the same in the toxic hyperplasias, exophthalmic goiters, toxic tumors and acute hyperthyroidism. The toxic hyperplasias are in excess. The minimum and maximum basal metabolic rate is anywhere from -14 to +148. This settles a question raised from time to time in discussion of the thyroid, as to the danger-line of basal metabolic rate prior to operation. We have learned, and are teaching our students, that the general condition of the patient should be taken into consideration more than any one symptom. We have operated successfully on patients whose basal metabolic rate the morning of operation was +148, whereas years ago we used to consider +70 as being in the danger zone. If we have a patient who had fatigue symptoms, nervousness, tachycardia, was psychic, and was extremely ill; and who, through the judicious and intelligent use of Lugol's and digitalis while in the hospital has become much improved and developed a fair pulse rate, we don't hesitate to operate irrespective of the basal metabolic rate. In many of these cases, under the above treatment the basal metabolic rate will be found reduced by the morning of operation.

In the grand total of 610 cases, there were 555 considered operative and 55 non-operative. Of the total of 555 operative, 472 were females and 83 males. Our total operative mortality in the 555 patients was 1.6%. Of the total of 511 females, 345 had borne from 1-15 children, showing that pregnancy has some relationship to thyroid disease.

The maximum pulse was 200. This patient had been subjected to a ligation elsewhere. She was psychic, afraid of the hospital, and had ideas of persecution. A sub-total thyroidectomy was performed. After operation we had trouble with the patient, the pendulum swinging back and forth between delirium, violent in character, until she finally settled down 3 months later. Today she is in normal health. We followed this patient for a number of years, and delivered her of a baby 2 years later.

There can be some justifiable criticism of the cause of deaths. One patient who, I thought, should not be operated on, caused us to hesitate but the patient, her husband and relatives, insisted in spite of the fact that we told them an operation would be fatal. On the fourteenth day, the patient died from cardiac failure. Another patient had Paget's disease of the nipple, and, in addition a large toxic adenoma. Possibly we did a little too much operating on her. It might have been well if we had performed these operations singly instead of together. Another patient died while we were trying to get her into condition. We felt in this case that if patient had been operated on 4 years previously, when her symptoms began, she might have had a chance.

Our percentage of recurrences is only 5, and 3 of these patients were operated on again and became entirely well. I feel that many recurrences are due to 2 factors—not enough thyroid taken out, and lack of post-operative care.

For many years we have adhered to the classification made by that famous surgeon, John B. Murphy, and we still feel that it is a splendid classification. He classified goiters according to the histology of the gland. As a student of Dr. Murphy, I heard him repeat this classification until it was indelibly printed in my mind. It is as follows: (1) Tumors arising from the vascular system of the thyroid, namely, veins, arteries and lymphatics. (2) Tumors arising from the connective tissue of the thyroid. (3) Tumors arising from the gland substances itself. (4) Malignant tumors. This classification, if adhered to, enables the surgeon to visualize prior to operation the trouble he is going to encounter on the operating table. For instance, consider a patient in class 1, with a pulsating arterial goiter that almost lifts the head off the table; you know your operation is going to be attended, if you are not careful, with a great deal of oozing of blood. If it is the venous type, you have to be careful in enucleating the gland because the venous channels are so pulpy and soft that hemorrhage is likely. In the lymphatic type, you have to deal with a little, stony, hard gland that almost cracks on

section. In the second class, the thyroid is diseased by metastatic infection that gives an enlargement and a hyperplasia of the connective tissue, and an intoxication of the patient to the degree of delirium, lasting sometimes for weeks and occasionally terminating fatally. It is my belief that this type is often caused by an acute infection of the nasopharynx.

In class 3, you encounter an increase in the number of cells and acini but no noticeable increase in a product that affects the patient, which here is a colloid material; or you encounter a circumscribed enlargement which gives you an adenoma of the thyroid; or an increase in the secretions without noticeable increase in size of the gland, which ultimately brings about a circumscribed cyst; or, there may be multiple cysts without any manifestation of hyperthyroidism. Sooner or later, more thyroid secretion than the patient can use is produced, and this results in Grave's disease, with a multiplication in the number of cells and an increase in the quantity of secretions beyond that which can be neutralized.

The only variety now left is that embracing the malignant type of goiter, but its consideration does not form a part of this paper.

It is well to hold to the classification just considered and to bear in mind the possibility that we may ultimately be able to secure some neutralizing substance that will benefit these patients and thereby avoid the necessity for surgical procedures; for after all, the present method of treatment by surgical operation is merely doing the best we can in the absence of more specific knowledge of the etiology of this condition.

Treatment of thyrotoxicosis comes under the following heads: pre-operative, operative, and postoperative. Our pre-operative treatment is simple. The patient is placed in bed and kept quiet. The morning after admission, without breakfast, basal rate is computed, and fluoroscopic and x-ray examinations are made of neck and chest. Patient is then left alone. Where possible, the patient should be under the care of a nurse who knows something about thyroid surgery and is tactful and kind. The patient is placed on Lugol's solution, the proper method of giving which has been out-

lined by Pemberton—10 minims the first day, 20 the second day, 30 on the third, and so on, increasing 10 daily until you reach 100. The length of stay in hospital prior to operation in extremely toxic cases has been 9 days. Those patients who need digitalis are given it, preferably in powdered form, in capsule, 1 grain 3 times a day.

The day before operation, the parents, friends or relatives of the patient are notified, but the patient is not. We believe that Dr. Crile is just as right today as he was 20 years ago in not informing his patients too far in advance about an operation. The morning of operation, an older patient is given a hypodermic of scopolamine and morphine, while a younger patient is given morphine only.

The operation is performed under whatever anesthetic the patient's case indicates—local, gas and oxygen, or ether. We have tried rectal anesthesia successfully in some cases; also avertin prior to anesthesia, which we believe has its place in properly selected cases. Spinal anesthesia we have never considered suitable. We believe in simplicity in the selection of an anesthetic, and we are always prepared, if necessary, to give ether. We have not used ethylene because we have not sufficient insulation in our operating room and fear explosions.

Postoperative care is important. As soon as the patient's neck is bandaged, postoperative treatment should start. Even before the patient leaves the table, where it is indicated, we don't hesitate to give an intravenous of glucose, sometimes 1000 c.c. of a 2-5% solution by bowel. It is customary in other cases to give this as soon as patient reaches the bed. In all cases we insist upon the head being a little higher than the feet, as we believe our patients then breathe better. We insist upon quietness, and like to have the blinds drawn, as these patients are very psychic. From the start, unless there is a great deal of vomiting, we insist upon the intake of fluids in large quantities. During the first 48 hours, many of these patients have a stormy time, and the more fluids they absorb, the better for them. We have had patients take as much as 6000 c.c. fluid in the first 24 hours.

The judicious use of sedatives for the first

24-48 hours is important. We like barbitol and luminal. Before the Government took control of the narcotic side of the practice of medicine, we used heroin, and thought this one of the greatest drugs in the postoperative treatment of thyrotoxicosis. Morphine sulphate is still a good sedative, but should be given judiciously and not routinely.

A good nurse is an essential adjunct. We have had trouble with this end of our postoperative treatment, and are continually annoyed by the inefficiency of those who should be the most efficient persons in the world.

After the patient leaves the hospital, the surgeon should be in contact for at least a year, working hand in hand with the family physician, who should, in turn, report any untoward symptoms to the surgeon. In this way, I believe that you will obtain the results that we show in our cases—a total of 83% cured, and 7% improved.

GLAUCOMA

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I have selected this subject for 2 reasons: (1) Because glaucoma is an important disease for both the general practitioner and the specialist; (2) because there are so many opinions about its etiology and treatment.

Like electricity, we know a good deal about the behavior of glaucoma, but almost nothing as to what it actually is. Glaucoma occurs mostly in persons past middle life, between 50 and 70. It is rare in youth and unknown in childhood, except a type to which I shall refer later. It attacks women twice as frequently as men, and is more common in hyperopes than in myopes. There are some families in which it seems to be hereditary. The chief symptom common in several types is increased intra-ocular tension. There are many theories regarding the cause of this tension. According to some, it is due to hypersecretion of the ocular fluids, and according to others to a fault in the drainage system of the eye.

What causes the hyper-secretion or the faulty drainage no one seems to know.

We speak of glaucoma as being primary, when it is idiopathic, and secondary, when it follows another disease or an operation or accident to the eye. I shall not deal in this paper with this latter type, as it would take me too far afield, but will confine myself to primary glaucoma.

Primary glaucoma occurs in congestive or inflammatory form, and in non-congestive form, also known as glaucoma simplex. The congestive form we divide arbitrarily into 2 categories; acute congestive and chronic congestive. I said "arbitrarily" because the acute type is liable to develop into chronic, and the chronic is liable to be complicated by an acute attack. Therefore, it may be more correct to speak of these types as *stages* of the same disease.

Let us take the acute congestive form. This is usually preceded by a prodromal stage in which there will be no marked symptoms. Hence, the patient may not have paid any attention to such slight inconveniences as occasional obscuration of vision, a little cloudiness, rainbow colors around lights, a feeling of tension in the eye, or a dull frontal headache. If she happens to be observing and intelligent, and consults a physician during her first or second attack, we shall find that the pupil is dilated and reacts sluggishly to light, the anterior chamber shallow, tension of the eyeball plus, and the ciliary region congested. This congestion may be mistaken for the congestion present in conjunctivitis and the patient may be given an eye lotion, such as boric acid, for its cure. This mistake can easily be avoided by looking for other symptoms. However, whether or not the patient has consulted a doctor, or the doctor has made a mistake in diagnosis, at the end of a few hours the attack subsides and the eye returns to a subjectively normal condition and stays so for several weeks or months, at the end of which patient may have another attack. When such mild attacks are continued for a year or more without the superimposition of an acute attack, we say the patient has chronic congestive glaucoma. In fact, if the patient belongs to the ignorant or unsuspecting class,

when she consults a doctor for the first time, complaining of dimness of vision, the disease most probably will be found to have reached this stage. The ophthalmoscope, which will not have revealed any changes in the optic nerve during or after the first attacks, will now show cupping and a grayish hue in the nerve head.

Frequently, during the prodromal stage, the patient suffers a sudden acute attack, of which we speak as acute congestive glaucoma. Even if the prodromal attacks had not made her seek medical advice, this acute attack will surely do so, because the symptoms are severe. The cause or causes of such acute attacks are not always easy to determine. However, it is a known fact that worry, abrupt weakening of the heart action, keeping the eyes bandaged for several days, or instillation of atropine drops, is liable to bring on such an attack.

The symptoms of acute congestive glaucoma are about the same as those of the prodromes, with this difference, that they are greatly exaggerated. Thus, the pain is severe enough to rob the patient of sleep and appetite, and radiates to other structures on that side of the face, such as ears, teeth, temples and forehead. There may be fever and vomiting. Simultaneously, the vision fails rapidly, so that the patient may be unable to count even the fingers. The field of vision will be found narrower, especially on the nasal side. The tension of the eye will be 2 or 3 plus; lids swollen; conjunctiva markedly congested; and there may be chemosis. Cornea is usually cloudy and may be dotted on account of edema in its cells, which at times may produce small vesicles on its surface; it is then almost insensitive to touch. Anterior chamber is shallow; and pupil widely dilated, at times oval, and, instead of being in the center, displaced to one side and upward. There may be a greenish gray reflex from the pupil, which gives the disease its name—glaucoma, meaning sea-green. On account of the cloudiness of the cornea, ophthalmoscopic examination of the fundus may be impossible.

If there is no medical interference, this acute attack subsides in several days, but certain sequels remain. These are, high tension, semidilated pupil, dilated ciliary veins

around the cornea, and poorer vision than before the attack. Ophthalmoscopic examination, which will now be possible, will show congestion of the retina but no cupping of the disc, *unless* the preceding prodromal stage had lasted long. The nausea and vomiting may continue for several weeks.

This stage of congestive glaucoma should be differentiated from an acute attack of iritis, because, if it is mistaken for the latter and atropine instilled into the eye, we shall have poured on gasoline to extinguish a fire. Cardinal points of differentiation are: in acute congestive glaucoma, photophobia is absent, cornea is steamy and anesthetic, tension high, anterior chamber shallow, pupil *dilated*, vision markedly reduced, field narrow, and pain very severe. In acute iritis there is marked photophobia but cornea is clear and sensitive to touch, tension normal, *pupil normal* or somewhat *contracted*, field of vision normal, anterior chamber normal if not deep, vision normal or slightly reduced. With these points in mind, one should not mistake glaucoma for iritis. But, if one is still uncertain as to the diagnosis and has to order drops, it is better to mistake iritis for glaucoma and order a miotic, such as eserine, than to mistake glaucoma for iritis and order atropine.

Without effective medical or surgical interference, these acute attacks continue, the intervals between them grow shorter and the vision dimmer, until the patient becomes totally and hopelessly blind. We then say the disease has entered its third stage—the stage of absolute glaucoma. This last stage may be called the stage of degeneration, and affects the cornea, sclera and lens. In the cornea appear spots of hyaline degeneration and cloudiness of the parenchyma. The sclera stretches, and at places a dark reflex from the underlying choroid may appear. On account of the degeneration going on in the retina and optic nerve, the patient at intervals sees flashes of light, which give her the false hope that she still has sight in the eye. The lens becomes cataractous. This cataract can easily be distinguished from senile and traumatic cataract by the symptoms of glaucoma present, and by the simple candle test. Finally, after some years, the eyeball softens and shrinks.

There is a fulminating type of acute congestive glaucoma in which the sight is incurably lost in a few hours. Hence the importance of correct diagnosis and immediate action in acute congestive glaucoma.

To turn now to *noncongestive or simple glaucoma*: this is a much milder form of the disease and is insidious in its onset and progress. To a casual observer, the eye looks normal; there are no signs of inflammation, except, perhaps, a slight fulness of the ciliary veins around the cornea. The cornea is clear, and the pupil and tension may be perfectly normal at the time of examination. One has to examine the patient at different times of the day, in order to elicit dilatation of the pupil or elevation in tension, and, for the latter, use the tonometer instead of the fingers. In this type, the ophthalmoscope is the most useful instrument, as it will show cupping in the optic nerve; and the longer the duration of the disease, the more marked the cupping. Unfortunately, the subjective symptoms are not severe enough to compel the patient to seek relief, unless she is intelligent and observing. In the earliest stages she may complain of occasional disturbances of vision, for which she may consult an optician and be given a pair of glasses which will put her mind at rest, as she will think that she was suffering from eye-strain and now that she obtained glasses her troubles are over. Also she may feel comfortable for a while, until she has another exacerbation or repeated exacerbations and is forced to seek medical advice. All this time her vision will be getting more and more defective and the field narrower, so that, when the doctor examines her, he is liable to find a tubal vision with its acuity markedly diminished, the optic disc cupped and the nerve degenerated. Simple glaucoma, unlike the congestive type, in the majority of cases attacks both eyes at the same time, and is found as often in men as in women.

While glaucoma, as I mentioned in the beginning, is a disease of past middle life, there is a type found in infants. This type is called buphthalmos—ox eye—from the fact that it stretches the eyeball considerably. It is either congenital or shows itself in the first year of life, and attacks both eyes. It is due to

maldevelopment of the pectinate ligament and Schlemm's canal; in other words, to faulty drainage system, on account of which the tension of the eyeball is elevated. The sclera in the infant not being as tough as it is in the adult, it gives before this elevated tension, and causes enlargement of the eyeball and cornea. This disease may come to a standstill, or it may progress until degeneration sets in.

The *treatment* of glaucoma is essentially operative. In the chronic form we may try drugs for a longer or shorter period, according to circumstances, but in acute cases immediate iridectomy is *the* sight-saving procedure. We must operate as soon as possible, for the reason that the acute attack may prove to be fulminating in character, which means permanent blindness in a few hours, and also for the reason that, even if it happens to be an ordinary attack, the vision will never be the same as before and the patient will probably have many similar attacks, each one of which will reduce the vision more. The *prognosis* as to sight is favorable in proportion to the promptness of operation. Complications of operation are hemorrhage and injury to the crystalline lens. It is my custom to order calcium and to take the bleeding time before operation. If, in spite of the calcium, the bleeding time is still high, I give the patient hemostatic serum half an hour before operation. This precaution, combined with a saline purge and with slow emptying of the anterior chamber while making the incision, guards against anterior or posterior hemorrhage. With ordinary care, the lens should not be injured, but in order to be farther on the safe side, I do not make the incision with a keratome, but instead use a discission knife-needle which is especially safe when anterior chamber is very shallow. Iridectomy is also perhaps the best procedure in chronic congestive cases. However, in the latter type, we need not be in a hurry to operate and can afford to postpone the operation and do it between the prodromes.

When iridectomy is technically impossible on account of obliteration of the anterior chamber in acute cases, or when it is dangerous as in hemorrhagic glaucoma, or in cases

of high tension and blood pressure, or when patient has only tubal vision left, or when the iris angle is firmly closed, or when the lens is dislocated into the vitreous and aphakia is present, sclerotomy or trephining of the corneo-scleral junction is indicated. The latter 2 operations are also advisable in noncongestive glaucoma and in buphthalmos. The aim of all of these operations is to *check* the disease; what destruction the nerve suffers before the operation, of course, cannot be reclaimed.

When may glaucoma be treat *medically*? *Never*, if we can help it. Of course, in the chronic type, whether it be the congestive or simple variety, we may treat the case medically for a few weeks, awaiting the convenience of the patient and a more opportune time in her psychology. But eventually these chronic types should also be dealt with surgically, for the simple reason that we cannot live with the patient and examine her during the 24 hours of the day to see whether we are perfectly able to control the symptoms medically. Because, while the tension may be found normal at the time of the examination, it may be elevated during other hours of the day and especially the night, and as such slight elevations will not cause much discomfort to the patient, there will be no way for us to know what is going on. However, sometimes we meet patients who have lost sight in one eye and are having attacks in the other, or patients who absolutely refuse any surgical interference. In such cases medical treatment is the only course left.

The nonoperative treatment of glaucoma consists in employing miotics, massage and hot fomentations, and hygienic measures. Among the miotics, eserine and pilocarpine are old standbys. We should begin with a weak solution, say 0.25% eserine sulphate and pilocarpine hydrobromide, and increase the strength twice or three times if the tension stays high. The glaucosans are rather recent remedies, and are in their trial stage. Levoglucosan is said to be efficacious in chronic, and amino-glucosan in acute cases. While they may be more powerful than eserine, they are not uniformly dependable and at times cause marked reaction and severe pain. Hypopyon keratitis is reported as having resulted

from their use. For one thing, they will *not* take the place of an operation when it is indicated. Massaging the eye with fingers rather firmly pressing on the eyeball, and application of hot compresses, are beneficial. The patient should avoid worry, overwork, and mental and physical exhaustion. Auto-intoxication by diet or by focal infections should be removed.

In conclusion, may I suggest that every eye patient with redness of the eyeball, blurry vision, pain in the eye and headache, should be regarded as having glaucoma until the contrary is proved by the absence of the objective signs and symptoms which I mentioned.

PSYCHONEUROSES IN RELATION TO GENERAL MEDICINE

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In order to understand the relation of psychoneurotic manifestations to clinical medicine in all its ramifications, one must first endeavor to form a clear conception of the underlying factors capable of producing functional disturbances in the nervous system. Not infrequently, as we all know, when an individual develops subjective disturbances referable to the ear, nasopharynx or larynx, the otolaryngologist is consulted first. Should the subjective disturbances have an apparent relationship to the ovaries, vesical and biliary organs, or other abdominal viscera, to respiratory and cardiac organs, or the eyes; in any such case, the respective medical or surgical specialist is apt to be consulted first. Such an attitude on the part of the lay patient is psychologically logical and correct, but, from the medical standpoint, it not infrequently leads to serious errors. That is to say, there are disturbances which have no fundamentally serious relationship to any given organ but concern purely mental functions. What characterizes the patient in all such instances is not the multiplicity of symptoms, nor the innumerable functional disorders which may simulate organic diseases, nor the painful sensations which he

or she experiences, but only a special state of mind.

Human machinery is so complex that every one of us experiences now and then some indication of a functional disorder—a gastric manifestation, vague pain, cardiac palpitation or some fugacious neuralgic discomfort, but, being normally constituted, we give such symptoms their proper interpretation and continue our activities in spite of them. Furthermore, we are able to overcome such unpleasant circumstances, and we may even surmount obstacles of a serious nature. Our relative indifference to all such conditions shows a proper adjustment and constitutes a normal state of mental health.

On the other hand, individuals whose attention is held firmly and for a prolonged period of time by the subjective disturbances enumerated above; who view the least unpleasant event as a catastrophe; who develop obsessions and hold them for years; whose associations of ideas are such that fear, anxieties or abnormal inhibitive phenomena make their appearance with the greatest facility and, *à propos* of insignificant occurrences; whose suggestibility and auto-suggestibility are exaggerated; whose reactions to external or internal stimuli are intense; all such personalities present an abnormal type of human being and require special consideration. Some fuller elaboration of this category of individuals is now indicated for a clearer understanding of the subject under discussion.

First, psychoneuroses should be firmly distinguished from mental deficiency. The latter is usually congenital; inherent, and the direct result of a morphologic or physiologic abnormality of the nervous system. Of course, psychoneurotic manifestations may appear in mentally defective individuals, but we are considering here only intellectually normal persons. Psychoneuroses are fundamentally psychogenic and develop in the midst of, and because of, abnormal psychologic experiences. Before discussing these experiences, however, let us present a few examples of psychoneurotic manifestations.

Case 1. A woman, aged 28, following a normal confinement, with no undue loss of blood and with a prompt recovery, misinter-

preted her slight serous vaginal discharges, explaining them to herself as due to a serious affection of her genitalia. Otherwise perfectly sound, she consulted a number of gynecologists who treated her by various methods; 2 by curetting. She became depressed, unhappy, and was in constant fear of malignancy, physical or constitutional, without an actual organic basis for it. Subsequent events proved that her belief was only psychogenic, as she made a complete recovery under psychotherapeutic management.

Case 2. A young, married woman, aged 25, was suffering with chronic constipation, and occasionally headaches. Coming frequently into contact with a female friend who also suffered from headaches and who had attempted to commit suicide in a fit of jealousy concerning her husband, she developed an idea that her friend had become insane because of the headache and that, therefore, her own headache might lead to insanity. She was advised to consult an oculist. After a refraction examination he told her that proper glasses would effect a cure. For 2 years she was in a state of fear and anxiety, without relief. She then consulted a gynecologist and a general surgeon. The former curetted the uterus; the latter operated for suspected adhesions of the transverse colon. The glasses, curettement, and abdominal operation, all failed to improve her condition, although each of the 3 physicians had assured her that removal of the condition which he considered the morbid cause would undoubtedly bring about a complete cure. Under psychotherapeutic measures, the fear and anxiety, as well as the headache, disappeared in a short time.

Case 3. A young man, 25 years old, during a period of 3 years complained of disturbances referable to almost every organ in his body—heart, gall-bladder, nose, ears, eyes, genitalia, rectum and right hypochondrium. Numerous physicians were consulted and each performed some manipulation or minor operation, and some advised major abdominal operations. One surgeon advised an appendectomy, and accepting that advice, he was placed on the operating table, but while the preliminary preparations were being made, the patient was suddenly seized with fright, refused to be

operated on, left the hospital; since which time there has been no return of pain in the right hypochondrium. Some time later, the patient observed a slight cloudiness of his urine and at once conceived the idea of a kidney affection. It was then that the writer had a good opportunity to see and keep him under observation. (It should be mentioned at this juncture that during the entire illness, of several years' duration, this patient continued his occupation as a railroad conductor, always slept well, and had a voracious appetite.) At the time of the examination, there was no doubt in my mind as to the psychogenic origin of the complaints. Psychotherapeutic management alone succeeded in removing the last obsessive idea. The patient is well at present, but, since such disorders are episodic in character, new hypochondriacal manifestations will probably eventually make their appearance when the patient is confronted with new emotional factors, the nature of which will be discussed later.

A girl, of 17, developed abulic phenomena. If, while crossing a street, she noticed a loose brick, she would be seized with fear and extreme anxiety; she could not step over the object, but would walk around it. If she made an effort to overcome her deficient will power, she would tremble, cry and stop. Being slender and pale, and having irregular and scanty menstruation, she was taken first to a gynecologist, whose diagnosis was anteversion of the uterus and who urged an operation. A general surgeon, consulted subsequently, spoke of uterine adhesions and advised surgical procedures, the nature of which I could not determine. A laparotomy was performed, with the result that her psychic condition, as well as her menstrual difficulties, were intensified.

Examples such as have been related could be multiplied, but these are sufficient to demonstrate that besides a physical there is also a psychologic approach, and that, after all, it may be the most important, if not the only, method of treating psychoneurotics. Organic or structural lesions can no longer be viewed as the sole basis of functional psychic disorders.

In order to know how to manage these

peculiar phenomena. let us briefly consider their nature and meaning.

The behavior of every individual is the result of an inter-relation of emotional instinctive tendencies, such as fear, anger, self-assertion or attachment, and the environmental conditions. The instinctive tendencies will have a different coloring in different individuals, according to inherited qualifications. That is to say, a highly sensitive person will manifest his emotional elements in a different way from a less sensitive one. The constant interaction between these instinctive emotions and environmental objects or occurrences produces complex 'psychologic states or complexes. We live in the midst of hourly conflicts between inherent and exterior elements. Complexes are being created continually. When they are recognized by the individual self, the conscious ego is able to overcome them and the normal state is maintained undisturbed. Many complexes, however, are not recognized, and since all are different, each from any other, and have different aims and purposes, antagonism of one to another is constantly being created. As they are not recognized, the conscious ego has no control over them, and they may remain with us an indefinite time during which they are apt to create functional nervous disorders or psychoneuroses.

In fixed ideas, obsessions, fears, states of anxiety and abulias, as we have seen from the histories cited above, the physical symptoms emerge as a substitute, but the emotion associated with the fixed idea remains, and as long as the latter is not altered or removed, the physical manifestation will remain and the patient will continue an unhappy sufferer.

Physical manifestations of psychoneuroses may be relieved, and the individual may, with an effort on his part, develop a certain skill in adapting himself to his environment and becoming contented for the time being. But such an adjustment is not a cure because the essential element in the conflict of complexes has not been attacked, namely, the emotional instinctive factor, which plays the most important rôle in the psychoneurosis. It is not

only adaptation to environment, but *adaptation to oneself* that is important. In other words, a psychoneurosis can be removed only when the sufferer is shown how to unravel and lay bare the elements of the complexes which are in constant conflict, so as to fit him to face himself. Attempts to remove physical discomfort will not remove the emotional elements which have created the psychic discomfort and which the patient will continue carrying with him, indefinitely.

Inability to understand this essential principle, and lack of desire to consider the possibility of a psychologic as well as a biologic cause of human suffering, are the reasons for failure of treatment. Frequently the cause of psychoneurotic disorders is sought elsewhere—in the uterus, ovaries, genitalia in general, or digestive apparatus. Dilatation of the stomach, gastropptosis, enteropptosis, nephropptosis, and cholecystitis are the possible conditions usually thought of, and for which major operations are performed. Not only does such operation indicate total therapeutic failure as far as the patient's complaints are concerned, but undesirable local and general consequences may arise which will complicate his psychic unhappiness with organic unfitness. As one of many examples of this particular contention I may call attention to the damage produced by castration of women.

In 1914 in a paper read before the American Medical Association (Jour. A. M. A., 63: 1345) the medical histories of 112 women who underwent complete or partial removal of the uterus or ovaries or both were presented and extensively discussed, from the broadest standpoint, by internists, general surgeons, gynecologists and neurologists. It was shown that the preëxisting nervous and psychic phenomena for which the operations were undertaken became aggravated in the months following operation. The obsessions and other psychoneuroses with which several women suffered prior to the oöphorectomies became more persistent and covered a larger field. Those who suffered with hysteric paroxysms began to have them in more accentuated form

and more frequently. Former hypochondriacal and anxiety states became deeper. All the patients had been referred to gynecologists, with indiscriminate assurances that the vague nervous manifestations were exclusively due to indefinite gynecologic conditions. Of course the operations were uniformly successful, but each victim's existence was rendered distressing. It was evident that partial or complete hysterio-oöphorectomies disturbed the well-established physiologic effect of ovarian tissue on the economy, or perhaps disturbed the intimate relationship between various ductless glands. Thus, in addition to the pre-existing psychic phenomena, organic disturbances were created.

The foregoing observations are sufficiently illustrative to support the contention that the real cause of psychoneurotic phenomena does not lie in accidental occurrences, such as traumatism, fatigue or local diseases. These factors react on us all hourly, and do not produce disorders of a permanent nature. A psychoneurotic individual, on the contrary, reacts differently because of special mental characteristics, which render him highly suggestible, sensitive and emotional. While such patients do not present new phenomena which are not observed in normal individuals, their reaction to all kinds of stimuli is expressed in a greater intensity, is reproduced with a greater facility, and branches out in a most unexpected manner. The complexes which were described above, and which we consider as the result of conflicts between the instinctive emotional elements and the environmental occurrences, are not easily recognized, nor are they properly interpreted when they are recognized by psychoneurotic personalities, because of the peculiar characteristics. The complexes which arise in abnormal patients are more numerous, and more antagonistic to each other, because of the greater intensity of each emotional element entering into the formation of the complexes. The environmental factors which also form a part of the

complexes equally give a different sensorial impression in the psychoneurotics, and consequently the mental representation in the latter will be different from that of normal individuals.

Many methods are employed in the management of psychoneurosis. The object of the present thesis is not the discussion of method or procedures in bringing to the surface the *modus operandi* of those complexes which are the basis of psychoneurotic phenomena. Psychotherapy in all its forms is a chapter apart. Suggestion, persuasion and, particularly, psycho-analysis, are measures that require special elaboration. My sole purpose is to call attention to the fact that all those abnormal manifestations are too psychic in character, and that the functional disorders of which the victims complain are too dependent upon special mental attitudes, to be attributed exclusively to organic disorders of tissues and organs. Psychoneurotics are psychopathic individuals. They occupy a place between insane and normal. Their number is legion and their multiple manifestations present infinite varieties and sub-varieties. The latter are mixed with human suffering in all its forms, medical as well as surgical.

In dealing with human life it behooves us medical men to approach its phenomena not only from a biologic but also from a psychologic standpoint. The former has for its object the adaptation of the individual to his environment; the latter his adaptation to himself. Social adjustment without a fundamental psychologic adjustment is not sufficient. It is only after psychologic adjustment has been successfully accomplished that the individual will be fit to face his environment. No removal of tissues or organs, no artificial correction of disturbances, however skilfully performed will make a psychoneurotic discard his fixed ideas, hypochondriases, abulias, fears or obsessions, if he is not taught how properly to restore peace amidst the bewildering complexes.

CARCINOMA OF THE BREAST WITH UNUSUAL METASTASIS*

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and

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The metastases of carcinoma of the mammary gland, being at once among the most important as well as the most remarkable features of the disease, have been subjected to extensive study, as a result of which certain generalizations have been amply demonstrated and widely accepted.

The first accepted principle is that the most common, as well as the most important, avenue of dissemination is the lymphatics of the breast, especially the axillary trunks, through which, by means of multiple anastomosing ramifications, the neoplasm most often becomes generalized and thus eventually may invade almost any tissue or organ of the body.

The second accepted principle is that, as exemplified by the relatively infrequent cases of miliary carcinoma and by the occurrence of cerebral metastasis, the extension and dissemination of carcinoma of the breast may occur by way of the blood stream. Though this hematogenous distribution is much less frequent than that through the lymphatics, it occurs as an aftermath of invasion of the veins of the adjacent and involved lymph nodes, the deep fascia, and, occasionally, the breast itself.

The third avenue of dissemination, not always remembered but of marked importance, is the muscular aponeuroses, which are, perhaps, of the greatest importance in the production of extensions of carcinoma of the breast to cutaneous and subcutaneous tissues of the trunk. Metastases of this type, fortunately infrequent, commonly involve the upper portion of the body and are rarely seen below

the waist and still more rarely below the knee. In one case recorded by Rolleston⁽¹⁾, while there were 105 metastases of a breast carcinoma to the skin, none were seen on the lower extremities. Lebrose⁽²⁾, in 66 cases collected from the literature, recorded only one in which a subcutaneous metastasis was found in the lower extremity (right thigh). Clayton⁽³⁾ recorded a case in which several nodules were found about both ankles; and Bartin and Bolton⁽⁴⁾ reported a cancer of the breast in a man, with widespread and numerous metastases, a metastatic nodule being present on the outer aspect of the distal portion of the left thigh.

In view of the infrequency with which such metastatic distribution is seen, the case here reported is of interest, the metastasis being in an unusual and infrequent site—below the knee—and, strangely enough, on the opposite side of the body from the present growth.

Case Report: K. E. J., an adult white female, aged 47, was first seen by Dr. Davidson on June 19, 1931, because of a lump in the right breast. Family history presented nothing of importance. Both parents were dead, the father having died at 67 of "heart disease", the mother at 73 of the same complaint. One brother died in infancy of "convulsions" and another brother and sister are living and well. There was no history, remote or immediate, of tuberculosis, malignancy or insanity. In March 1930, the patient first noted a small lump in the right breast which she believed to have followed a blow with a mop handle a few weeks before. She at once consulted a physician, who gave her a salve which he termed the "Da Costa cure". Despite faithful use of the salve for some months, the mass in the breast became larger and the patient lost 20 pounds in weight.

In either January or February, 1931 (the exact date being uncertain), the patient bumped her left shin against the bed. The site of this blow was painful for a few minutes but there were no other immediate after-effects. In April 1931 she noted a small lump at this site, which she called to the attention of her physician and for which she was again given a salve, despite the obvious failure of this "cure" in treatment of the breast lesion.

* (From the Laboratories and Surgical Division of the Atlantic City Hospital.)

In addition, she was advised to apply flax-seed poultices. With rather remarkable faith, she persisted in this treatment until June, when, the lump on the leg having increased in size and developed a bluish, mottled appearance, she decided to change her medical adviser and was then seen by Dr. Davidson, by whom she was referred to the hospital for immediate operation.

Patient was admitted to the hospital on June 21, 1931, and operated upon the next day by Dr. D. B. Allman. An x-ray of the mass over the tibia showed no evidence of bone metastasis. The films showed a diffuse infiltration of the upper outer quadrant of the right breast but no definite nodules and no evidence of involvement of the axillary nodes. The right breast was amputated without a radical axillary dissection, as there was no

Sections were made from all the tissue after formalin fixation. Sections from the masses in the breast presented the typical histologic picture of a fibro-adenocarcinoma as shown in Figure 1.

The sections from the tumor mass over the tibia presented an interesting picture. The bulk of the tissue consisted of cells of fibrous type, young connective tissue cells, scattered cells of epithelioid type, and occasional areas of round-cell infiltration, the histologic picture thus far being a chronic inflammatory reaction. Scattered throughout this reticulum, however, were numerous groups of wandering metastatic carcinomatous cells which, in addition to wandering throughout the tissue interstices, were also found in segregated groups having a more or less alveolar conformation. The sections are evidently from



Figure 1.

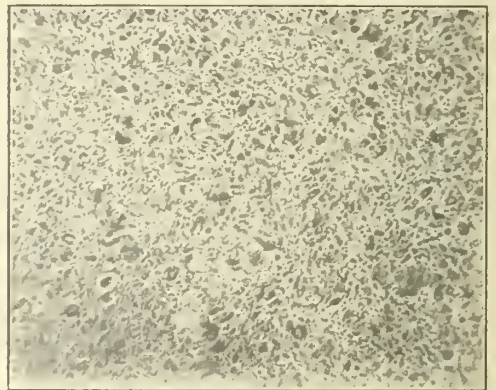


Figure 2.

gross evidence of axillary involvement. The report of the laboratory examination of these specimens follows:

There are two specimens. One consists of fragmented tissue, soft in consistency, grayish-white in color; and in general, suggesting in appearance softened or degenerating pancreatic tissue. This specimen has been removed from the superficial tissues over left tibia. Second specimen consists of right mammary gland, which measures 10x15 cm. On palpation, two firm masses, of irregular shape and dense consistency, can be felt in upper outer quadrant. When exposed and sectioned, these are grayish-white in color and of fibrous consistency and in appearance resemble a scirrhous carcinoma.

a metastatic implant from the primary growth in the breast.

While the usual pathway of metastasis in carcinoma is by way of the lymphatics, hematogenous transplantation occasionally occurs, and the unusual site of the secondary growth in this case indicated the advisability of determining if metastases had occurred elsewhere throughout the body, as would probably happen if hematogenous distribution had actually taken place. This possibility was investigated by means of the x-ray but no further evidence of metastasis was found.

Patient made an uneventful recovery from operation and was discharged on July 4, 1931, both wounds being in good condition. Healing of the breast wound was by first intention

and without untoward event. The area from which the mass in the leg was excised was treated by x-ray from time of discharge until patient's readmission to the hospital on September 15, 1931. During the period between discharge and readmission, patient received four x-ray treatments in accordance with the following formula: 9 inch spark gap; 5 milliamperes, $\frac{1}{2}$ mm. copper and 3 mm. aluminum filter, 10 inch distance, and 20 minutes exposure. In addition, on August 24, 1931, a full dose was given to the inguinal glands.

Despite these treatments and the fact that the wound healed, the area showed a gradual increasing induration and thickening. There was obviously a recurrence of the growth in

and friable and to extend laterally and medially for several centimeters from its center. As dissection proceeds, the extension is seen to proceed along the fascial planes, so that growth occupies an area extending from skin above to periosteum of tibia below, from which it can be shelled out only with difficulty. The periosteum is not involved, however, and is easily peeled from tibia, leaving a smooth surface. In its deeper layers the growth in places is necrotic. Because of its marked friability, it cannot be removed *en masse* but comes away in soft fragments which grossly show evidence of being held together by fibrous septa.

Paraffin sections were cut from numerous areas after formalin fixation.

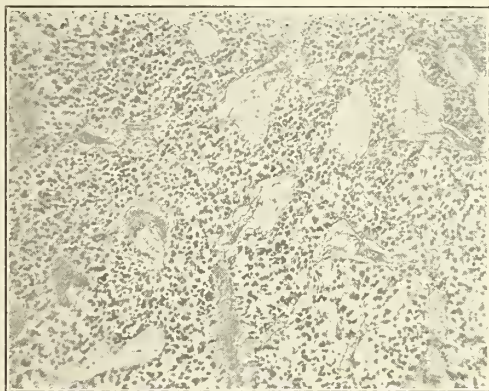


Figure 3.

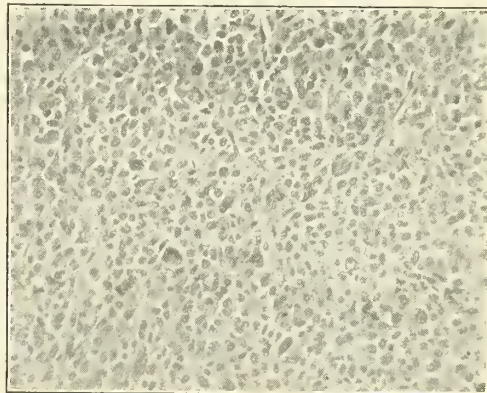


Figure 4.

this area, so the leg was amputated a short distance above the knee.

The laboratory examination revealed the following:

Specimen consists of left leg, which has been amputated a short distance above knee. Ten centimeters below patella, there is a marked swelling, arising from the presence of a mass, apparently subcutaneous in location, which does not appear to be definitely demarcated or encapsulated and which is rather freely movable. There is no evidence of attachment to the underlying tibia or adjacent structures, and no break in overlying skin surface. Just below swollen area is a well-healed and relatively recent operative scar.

On dissection through area involved, tumor mass is seen to be pale in color and very soft

Microscopy: Sections from central portion of growth show extensive inflammatory changes, with many new blood vessels and well-marked areas of necrosis. Throughout these areas are found a well-marked and diffuse leukocytic infiltration, occasional large multinucleated epithelial cells, and large numbers of epithelial cells of malignant type but showing definite degenerative changes. Histologic picture in these areas is predominantly that of an inflammatory and reactive process occurring in an epithelial neoplasm.

As the sections approach the periphery of the growth, the inflammatory reaction, while still present, is less marked, and histologic picture is distinctly that of an actively proliferating carcinoma. Epithelial cells are present in greatly increased numbers, are not well differentiated, show many mitotic figures, and

have a definite alveolar conformation, histologic picture being that of an alveolar carcinoma.

It is obvious that while there had been a destructive effect as a result of radiation, the spread of the growth had not been inhibited.

The patient recovered satisfactorily from the operation, and was discharged on September 19. To date there has been no evidence of recurrence in the breast and the amputation stump is in every way satisfactory.

This case is of interest from several viewpoints. It furnishes, of course, another example of the results of delay in treatment of malignant tumors of the breast and of the futility of "cancer salves" and "cures". If there is a moral to the story, it would seem to be that education as to the necessity for early recognition and treatment of malignancy must not be directed solely to the public at large, but may well include, also, the occasional physician who has failed to keep in touch with medical progress in this important matter.

The unusual and infrequently encountered site of the metastasis furnishes an interesting subject for speculation. Absence of any evidence of regional lymph-node involvement renders the lymphatic system unlikely as the avenue of extension.

The similar absence of other and widespread foci, such as would appear in a hematogenous dissemination, suggests that the blood stream was not the path by which the growth was transferred to the lower limb. On the other hand, if the one remaining avenue—extension along the aponeuroses—is accepted, it is difficult to explain the localization of the metastasis on the *opposite* side of the body.

The mechanism of the metastasis is far from clear, and for this reason, at least, the case seems worthy of record.

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THE RELATION BETWEEN OPTIC NERVE PATHOLOGY AND SINUS DISEASE, WITH REPORT OF A CASE OF NEUORETINITIS

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Newark, N. J.

There are many conditions in ophthalmology which have as an underlying basis nasal pathology. Nasal sinus disease may cause any condition in the eye which may be produced there by focal infection elsewhere in the body. Among the ocular diseases which have been traced to nasal trouble may be mentioned orbital cellulitis, retrobulbar neuritis, and optic neuritis. Especially important is the relation between optic nerve pathology and sinus disease, and in this connection the utmost co-operation between internist, rhinologist and oculist is necessary to arrive at a sane and reasonable conclusion. In this paper I would like to give a brief summary of this problem, emphasizing the various views held, and to present a case of neuroretinitis markedly improved by spheno-ethmoid surgery.

That optic nerve pathology and nasal affections may go hand in hand has been known for years. In 1877 Berger demonstrated perineuritis of the optic nerve due to spheno-ethmoid disease. Since that time, the literature has been flooded with articles, either decrying or recommending nasal surgery in cases.

We are indebted to Onodi and Schaeffer for their excellent descriptions of the close anatomic relationship between the optic nerve and the postero-nasal sinuses. A close understanding of the anatomic relations involved is essential for the proper interpretation of the problem. I am, therefore, quoting Schaeffer, who says, "The only sinuses that interest us in this connection are the sphenoids and posterior ethmoids. The optic nerve varies from 31-55 mm. in length, of which 25-40 mm. is intra-orbital. The remaining portion is located in the optic foramen and anterior cerebral fossa. The relation of the optic nerve to the paranasal sinuses becomes more and

more intimate as one passes from the eyeball toward the optic commissure. The optic commissure bears a very intimate relationship to the sphenoid sinus in the vast majority of cases. The exact relationship, of course, must vary with the size, shape, symmetry and location of the sinuses. The commissure is immediately above the roof of one or both sinuses in many cases. The thickness of bone between the sinuses and optic commissure varies from a papery delicacy to a substantial thickness. The optic nerve pursues a course ventralward from the optic commissure, along the roof or lateral wall of the sphenoid sinus. Frequently a posterior ethmoid cell is intimately related as well. The thickness of the bone between the optic foramen and cavity of the sphenoid varies from 0.2-2.0 mm. Occasionally a sphenoid sinus surrounds the optic nerve. In the more usual and moderately sized posterior ethmoid cell, the optic nerve at the foramen is separated from the most dorsal and superior cell by bone 2-5 mm. in thickness. However, when the posterior ethmoid cell invades the sphenoid to form the sphenothmoid cell, the bone between the sinus and optic nerve is reduced to tissue paper delicacy."

For most purposes, however, it is enough to remember that the wall between the last ethmoid cell and optic canal is nearly as thin as tissue paper, and that dehiscences are also found where the diseased mucous membrane may come in contact with dura or optic nerve sheath.

TYPES OF OPTIC NERVE PATHOLOGY

Optic nerve pathology may be divided into 3 large groups: retrobulbar neuritis, neuroretinitis, and papilledema, chiasmal tract disease, residual optic atrophy.

Retrobulbar neuritis is probably the most important. In this type the vision is markedly reduced or absent. In the beginning the fundus is normal; later, the nerve is hazy, vessels normal or diminished in size, blind spot enlarged, field contracted, and there may be central color scotomata. In neuroretinitis, the nerve is red and covered with plastic exudate, hemorrhages are present, and chorioretinitis and retinal edema may be present. The blind

spot is enlarged, vision depressed, and there may be swelling of the disc. Peters, of Philadelphia, claims that enlargement of the blind spot is an almost constant symptom of sphenoid and posterior ethmoid disease. Van der Hoeve says that it is a valuable and early symptom of optic neuritis from disease of the posterior sinuses.

There is marked diversity of opinion concerning the effect of sinus disease on the optic nerve. To give even the greater part of the views expressed on this subject would be beyond the scope of this paper. However, a few of the leading opinions will be briefly reviewed.

Leon White, who has done much of the pioneer work in this field, reported 33 cases of optic nerve disturbance. Tonsils were the only focus in 10 cases; teeth in 7; antrum in 1; teeth and tonsils in 3; teeth, tonsils and antrum in 5; ethmoids and teeth in 3; and general diseases in 4. In 5 cases the posterior sinuses were opened. As the teeth with the tonsils appeared to be the foci in 70% of the cases, while the posterior sinuses were involved in less than 10%, there would seem little excuse for considering posterior sinuses important in optic nerve disturbance.

Scheerer, in 1929, concluded that only 1.5% of 203 cases of retrobulbar neuritis was due to sinus disease. In his series, multiple sclerosis was the chief cause. All but one of his patients recovered without operation.

Weill, the same year, reported 40 cases with a return of vision without surgery in 85%. His summaries were: (1) Prognosis of acute retrobulbar neuritis without surgical intervention may be considered favorable. (2) The origin should be sought elsewhere than in the sinuses. (3) Acute retrobulbar neuritis is to be considered the first sign of multiple sclerosis. (4) The condition does not call for operation.

Zeighler, of the Mayo Clinic, showed that defects of vision constituted only 14% of the onset symptoms in 529 cases of multiple sclerosis. This report seems to refute Weill's.

Dr. Vail reports 23 cases of optic nerve pathology, in which 8 were due to syphilis, lead, quinine or multiple sclerosis, and 15 to

nasal sinus disease. Of 6 patients who were not operated on and received no treatment, 50% progressed to 20/25 or better. Of 9 operated on, 77% went on to complete recovery, 11% to 20/30, and 11% were slightly improved.

Thomson says that toxic plastic neuritis due to sinuses is often met with, and if an operation is not performed, atrophy follows speedily.

Herzog found 33 cases of chronic and 14 of acute retrobulbar neuritis in 500 cases of accessory sinus suppuration. He believed that if the neuritis does not improve with adrenalin packs, there is another etiology.

Papilledema as a result of sinus disease is another moot question. Cushing is of the opinion that it is unbelievable that an infection of the sinuses, in the absence of increased intracranial pressure, should produce an actual choked disc. Peter says that, contrary to the belief of some, choked disc of varying degree is observed as the result of sinus disease. Zentmayer records cases where papilledema actually existed due to sinus disease.

Chiasmal and tract complications may be grouped together. Referring back to the anatomy of the parts, it can readily be seen that sinus pathology may easily extend to the visual pathway. Peter quotes cases of this type. He also says that any of the forms of optic nerve involvement mentioned may be followed by an atrophy, if operation is not performed as soon as the etiologic factor is determined to be sinus disease.

THEORIES OF CAUSATION

(1) *Allergic.* Mackenty says that in cases in which there is pus, a thickened protective membrane is present in the sinuses. In latent cases, the membrane is thin, allowing the passage of toxins. He thinks that the sensitization of the tissues lateral to the sinus causes an allergic reaction with edema.

(2) *Negative pressure.* It is a well recognized fact that patients with optic neuritis usually have obstruction to ventilation and drainage of the posterior sinuses. This obstruction is usually produced by a middle turbinate wedged between the turbinate and septum. There is also a septal deviation to the affected side. Any of these conditions may

so obstruct the normal openings of the posterior sinuses that negative pressure within might readily ensue. This would favor migration of bacteria and toxins from the blood stream or lymphatics to tissue adjacent to the optic nerve, with a subsequent neuritis.

(3) *Hyperplastic sinusitis.* Hyperplastic sinusitis is defined as a rarefying osteitis, associated with inflammatory swelling and thickening of the mucous membrane. Discharge is absent; transillumination is negative; x-ray may be suggestive. Mosher, however, says that hyperplastic sphenothmoiditis is questionable. Thomson believes that those patients in whom there is free discharge are not apt to be the ones in whom the eye condition is due to the sinuses.

(4) *Small optic canals.* White says that small optic canals are contributory factors. If large optic canals are present, the cause of the neuritis should be looked for elsewhere. This is especially so if they are as large as 4.5-5.5 mm.

(5) *Direct extension.* Many believe that direct extension of the infecting agent occurs through dehiscences or along blood and lymph vessels. Given an optic nerve with only thin protection, one can readily see how the inflammatory process may be directly transmitted to the nerve, with subsequent constriction. Herzog showed marrow spaces between the optic canal and sinuses, in which cellular processes running from the sinus submucosa and the sheath of the nerve were interwoven.

TREATMENT

What should be the treatment of optic nerve involvement where the sinuses are suspected?

Smith is of the opinion that it is unquestionably a justifiable procedure to operate on posterior sinuses when every other possible cause of the neuritis has been eliminated.

Leon White headed the school of conservatism. He advised that treatment should be considered under 3 headings: (1) Probably 50% of patients would recover spontaneously. To submit these to any serious operative procedure, not definitely indicated by pathology present, would be unnecessary and meddling. When some definite focus is found, as in tonsils and teeth, removal is indicated irre-

spective of the eye trouble. When no such definite focus is discovered, local treatment by packs and sprays is sufficient. (2) In about 30% of patients, there is, in addition to some focus of infection, marked nasal blocking by a septal deflection or by a hypertrophy of the middle turbinates. These cases are usually of moderate severity, and removal of the focus, a submucous resection, and a turbinectomy are indicated. (3) There remains a small number of cases, probably less than 20%, where optic atrophy is to be feared. Here, the posterior sinuses ought to be opened.

Borden gives us the best summary on this subject: "Assuming that the operator is qualified, and assuming that all probable causes have been eliminated, and that every means of diagnosis has been resorted to, I will suggest that when you are face to face with a serious optic nerve disturbance, the part of good judgment and conservatism requires an operative exploration of the sphenoid and ethmoid cells."

We followed Borden's advice in the case of Mr. D., which I now report:

Mr. D. first came to the eye clinic on October 3, 1931. Married, white, 33, driver. History: On awakening September 22, patient noticed haziness and blurring of vision in left eye. For next 5 days, he noticed pain deep in orbit. Pain was more marked on movement of eyeball. At time of onset, had some lacrimation. Pain lasted several days and then subsided. At time of pain, he noticed some redness of left eye and strained feeling in left side of face. Past history: Frequent colds and tonsillitis. Some obstruction to breathing on left side of nose. Had prostatic massage a year ago. Has had some pain and irritation at end of penis during micturition.

Examination October 3 by Dr. Rados: Found right eye normal. With left eye could only see hand movements. Large amount of

exudate in lower temporal part of disc. Lower inferior macular vein embedded in exudate. Numerous small yellowish spots of pinpoint size present along terminal branches of superior macular artery. Large floating opacities in vitreous. Diagnosis: Neuroretinitis.

October 5: Examination revealed septum deviated to left; diseased tonsils; transillumination essentially normal; hypertrophy of right inferior turbinate; no pus seen either by anterior or posterior rhinoscopy. October 6: Medical examination negative; blood pressure 122/72. October 7: Urine revealed faint trace of albumin. Dr. Rothenberg's urologic report was of mild nephritic involvement secondary to acute infection. X-ray of teeth was negative; x-ray of sella turcica normal; x-ray of sinuses revealed slight cloudiness of left ethmoid. Neurologic examination normal. October 14: Tonsils removed under local anesthesia. Examination of eyegrounds following tonsillectomy: Right eye shows no involvement; left optic nerve shows hazy margins; in lower temporal part of disc there is a large amount of white exudate, extending into retina along course of inferior macular artery; disc swollen, with obliterated vessels at nerve head. Diagnosis: Neuroretinitis.

October 30: A submucous resection, middle turbinectomy, ethmoidectomy and sphenoidectomy were done on left side. No marked pathology found clinically. November 1: Patient seems to see better; claims vision is returning. November 4: V. A. 15/15 in right and 15/40 in left. December 19: V. A. left 15/40. April 9: V. A. left 15/20.

Laboratory reports: Wassermann and Kahn negative; blood counts showed a mild leukocytosis of 16,000. Pathologic report: Tissue from ethmoid and sphenoid region shows evidence of chronic infection; there is increase in fibrous tissue and an infiltration with lymphoid cells in submucosa; glands show evidence of hyperactivity.

Communications

DISTRICT HEALTH OFFICES ABOLISHED

To Local Boards of Health in Camden, Gloucester, Salem and Cumberland Counties:

Owing to reduced appropriations the State Department of Health finds itself unable to maintain District Health Offices, or to provide telephone service or traveling expenses for district health officers.

The district office formerly maintained at 13½ Broadway, Pitman, has therefore been closed. Hereafter I may be reached through my residence telephone, Pitman-150. I may be conferred with at my home, N. E. Corner Highland Terrace and Jefferson Avenue, Pitman Hills. My mail address as district health officer will continue to be Pitman, N. J.

Because of these retrenchments, the amount of work done away from my home, for an indefinite period, will be practically limited to matters of importance which cannot be handled satisfactorily by correspondence.

I. W. Knight, M.D.,
District Health Officer.

SOCIAL INSURANCE: UNDERMINES NATIONAL CHARACTER

(Ninth of a series of communications dealing with group health insurance.)

By Edward H. Ochsner, M.D.,
Chicago, Illinois

(Continued from August Journal)

Someone has said, "Happy is the nation that has no history". Whoever said this probably had in mind the old type school history text books which contained little besides records of military campaigns, revolutions and international wars. Viewed from that standpoint the epigram was unquestionably true. Today a more suitable epigram would be, "Happy is the nation that has no need for charitable organizations or devices". The ideal society would be one in which every individual can and does secure a decent living for himself and those dependent upon him by the "sweat of his brow", or by mental exertion, or, what would be better still, by the application of both brain and brawn.

There is no fundamental difference between outright charity and social insurance; both undermine character; both have a tendency to pauperize the citizen, for both rob the individual of his self-reliance and his enthusiasm and his urge for industry; they both penalize the honest, frugal and industrious, and favor the lazy shifters and immoral because they inevitably favor the unfair and inequable distribution of the results of labor; both encourage malingering and favor neuroses; both often give something for nothing or much for little, which is the basis of parasitism, and both delay the ultimate goal when every man shall reap the fruits of his labors.

The man who once accepts charity, particularly if it is not a case of dire necessity, is not quite so fine a man as he was before. He has lost something that nothing can replace. Wars, pestilence, or general disaster may reduce anyone of us to want and penury and then there is no disgrace in accepting aid from our fellowmen; but under or-

dinary circumstances no able bodied individual with fair intelligence and health has any moral right to that which he has not honestly earned.

The proponents of Compulsory Health Insurance will undoubtedly say that it was with the view of saving men and women from the stigma of being paupers and the evil effects of pauperism that this and other phases of social insurance were brought forward. Exactly, but what has actually happened they did not foresee. As is so generally the consequence when a law is enacted on an emotional basis instead of on sound reasoning and adequate experience, an element was introduced even worse than pauperism; besides, pauperism was not relieved nor even mitigated.

There are 2 distinct types of paupers: The mentally and morally subnormal who are not in any way injured by the stigma of pauperism and who still remain paupers because no Compulsory Health Insurance law so far devised includes or can include them. They are the "unemployables" whom industry cannot use. The second class are old people who in their youth have been lazy or extravagant, or who have lost their savings through poor investments. Those who have been lazy and extravagant are simply reaping their just reward and have no one to blame but themselves and it is morally wrong for the government to tax the thrifty and industrious for their support except in almshouses. The way to deal with the problem of the investment sharks is to teach the pupils in our high schools something about investment and to hang the gold brick and non-secure security salesmen; or, if this is too drastic, devise some other way of putting them out of business.

Compulsory Health Insurance has simply added parasitism to pauperism. The effect upon the insured and upon the public in general is almost as bad as it is on the medical profession. It encourages malingering and deception; it puts a premium on sloth and shiftlessness and a penalty on industry and integrity and thrift; it robs industry of its just reward; and it encourages parasitism.

One of the first effects observed after its introduction in Germany was the changed attitude of a large group of the insured. Before the law went into effect, patients came to their physicians for the relief of real ailments; after it went into effect an ever-increasing number came with imaginary and simulated ailments for the purpose of getting the sick benefit stipend or free hospital care. The latter was particularly the case in the fall of the year when many came complaining of things that were difficult to diagnose and hence difficult to exclude, such as spinal concussion, neuritis, and vague abdominal pains. As time has passed this abuse has gradually grown to appalling proportions as the following statistics indicate. Dr. Potts, of Oak Park, cites the following:

In a check-up in Braunschweig, 2008 people on the sick list were asked to report for a check-up examination. This induced 816 to report for work at once, 289 were found fit for work and only 903 or less than 45% of those receiving sick money were actually sick. The proponents of Compulsory Health Insurance will undoubtedly say—this is an individual instance. But not so. This abuse is so almost universal that it is seriously affecting the general honesty of the rank and file of the citizens of those countries where it has been in operation the longest. Social insurance is one of the major factors which has brought Germany to the very verge of economic ruin, and worse than even that—it is undermining the fundamental honesty and moral integrity of the German citizen.

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Each member of the State Society is entitled to receive a copy of the JOURNAL every month. Any member failing to receive the paper will confer a favor by notifying the Chairman of the Publication Committee of the fact.

NOTE.—The transaction of business will be expedited, and prompt attention secured if:

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All communications relating to reprints, subscriptions, extra copies of the JOURNAL, books for review, advertisements, or any matter pertaining to the business management of the JOURNAL are sent to THE CHAIRMAN OF THE PUBLICATION COMMITTEE (address above), Newark, N. J.

A MESSAGE FROM THE SECRETARY OF THE STATE SOCIETY

J. B. Morrison, M.D.,
Newark, N. J.

Active preparations are already afoot to make the 1933 session of the Medical Society of New Jersey an outstanding success. We were all delighted and surprised with the attendance at our Convention recently closed and its success was largely due to the energetic action of President Hagerty. The surgical program was his special hobby and he did much to make the Scientific Exhibit one of the leading features. We had feared that the depression would have greatly reduced the attendance but were agreeably surprised when the registration went up to 1009, within 10 of the largest ever recorded. This included 465 members, 100 more than had ever attended an Annual Meeting before. Our quarters were crowded to capacity.

When we showed the hotel management that we were outgrowing the accommodations on the thirteenth floor, we were readily accorded the privilege of holding the Commercial exhibit, as in years gone by, in the foyer on the first floor. This will make the Exhibit more popular with the Exhibitors for they will have the opportunity of exhibiting their wares to the public as well as to the members of our profession. The large room which has been given over to them in the past 3 years will be placed at the disposal of the Scientific Exhibit and all their material and display will be in 1 room. This will leave ample room for the Sections, all of which may meet on the thirteenth floor.

It is planned to have the House of Delegates convene on the afternoon of Tuesday, the first day. This will permit the delegation from distant parts of the state to attend the first session without incurring the expenses of an overnight stay at the hotel. Then we will probably adopt Pennsylvania's plan of having the Sections meet in the forenoon and the General Sessions in the afternoon. This will give the members an opportunity to attend the Section meetings, listen to whatever papers they wish, and take part in the discussions.

The General Sessions, under this plan, will convene on the afternoons of Wednesday, Thursday and Friday and if the Scientific Program calls for another session this may be held on the evening of Wednesday when there is never anything else going on.

Under this plan, the Woman's Auxiliary can hold its sessions in the large room where General Sessions are held and thus bring all of our activities on the thirteenth floor and make the members of the Auxiliary feel that they are indeed an integral part of our organization. The general membership will thus have an opportunity to attend these sessions and come to realize just what this Auxiliary means to organized medicine in New Jersey.

Just as Dr. Hagerty made surgery the outstanding part of the 1932 program, so Dr. Lippincott will endeavor to make urology the feature of the 1933 session. He will muster the best talent in New Jersey, New York and Pennsylvania to assist him.

The Officers and Committees are doing their work with unusual energy and it is hoped the membership at large will see to it that the attendance in 1933 is the highest ever recorded.

Medical Ethics

"BEING ALIVE IS AN EXPERIENCE NOT TO BE MISSED"

John Hammond Bradshaw, M.D., F.A.C.S.,
Orange, N. J.,

The only originality of this title lies in its application to the substance of this paper. But in order to appreciate, to the fullest extent, its whole meaning, one should have lived in this world more than a few years. It may also be necessary to have traveled far, in order to meet many people and to have seen many lands. One should also have lived long enough to have plumbed both the depths of life's sorrow and the heights of life's joy.

Far be it from the writer to convey the idea of any smug satisfaction with the life that he himself is leading; but he will not be contradicted when he affirms that it is only life itself that can give experience. And that experience (in the last analysis) will only be pleasing if that life has been sane, happy, useful, and not hateful, in all its memories. It will be a great help if that life has been free from wrong doing.

Not every living man is alive. And this is a sad truth. The writer has known many living patients who, if they were not dead (to all practical purposes), it would have been better for themselves (and for their relatives) if they had been really dead. *But it is the sad duty of the physician to put forth all his skill to keep undesirables alive!*

This, however, does not alter one bit the absolute truth of the title of this article.

Heredity and environment are difficult things to change. It is the contention of the writer that their change is *possible*. Let no one dream but that persistent and courageous human effort can alter adverse circumstances! Doing this will make life an experience that should not be missed.

If one is weak enough to harken to all that is said about one, then one's experience in life may indeed be bitter. If one is wise enough to "select one's own parents"; if one is wise enough to turn aside from those frivolities of life that sap one's strength; if one will be true to oneself and to his God—then being alive is an experience that should not be missed.

In Lighter Vein

Figuring Worse Than Fingering

"What do you find the most difficult thing on the piano?"

"To pay the installments."—Buen Humor (Madrid).

A Nod's as Good as a Wink

Marie—"Did you give Bob any opportunities to propose?"

Mabel—"Yes, but goodness, I couldn't tell him they were opportunities, could I?"—Jokesmith.

Referred to Emily Post

Oh ye paragraphers to the rescue haste,

A momentous question has arisen.

If a Leap Year maid ask a bachelor's hand

Should she go on her knees or hisen?

—Taylor County News.

No matter whether it's leap year or not,

Since the question has arisen,

Even if she does propose almost anybody knows

She's sure to be sitting on hisen.

—Florida Times Union.

The columnists aren't making much of leap year and its feminine privileges, nor are our contributors. One verse that came in runs:

In the seethe of leap year fancies

This one rises to the top:

Does the girl who pops the question

Have to go and question pop?

—Boston Transcript.

Got His Number

The bus was full but a large lady elbowed her way in.

Lady—"Two tickets, please. One for me and one for my husband outside."

Conductor—"Can't your husband get his own ticket. How am I to know which is your husband?"

Lady—"Impudence! I shall complain to the company."

Conductor—"Calm yourself, madam. I can imagine what your husband is like."—Die Woche im Bild (Olten).

Wishes He Had Buried It

Client—"I know the evidence is strongly against my innocence, but I have \$50,000 to fight the case."

Lawyer—"As your attorney, I assure you that you'll never go to prison with that amount of money."

And he didn't, he went there broke.—Capper's Weekly.

Oldest Inhabitants

Oh, get the tar and feathers for

Aunt Arabella Earl;

She raves about the blizzards that

She lived through when a girl.

—New York Sun.

A fence-rail ride for Uncle Si

Who constantly gives tongue

About the snowdrifts house-top high

He saw when he was young

—Boston Transcript.

Lighthouse Observations

PRESCHOOL-AGE DIPHTHERIA

"Believing as I do that the boys and girls of New Jersey are its most valuable asset, and that their health, safety and welfare are of supreme importance to the State, I welcome the opportunity of endorsing the present campaign to prevent diphtheria by the safe, simple and painless procedure of immunization.

No government can do finer work to encourage the saving of human lives, and when these are the very little ones—the tots of our households—then, the effort becomes a veritable crusade.

A great writer has said that the instinct most to be treasured in men is the willingness to slave, to starve, and even to annihilate oneself for one's children. It is this spirit, I trust, that will fill the minds of the parents of little children when the facts of diphtheria prevention are placed before them by physicians, health officers and nurses.

I am convinced that, by concerted effort, we can entirely wipe out the centuries old scourge diphtheria."

Thus spoke the Honorable A. Harry Moore, Governor of New Jersey, on Nov. 16, 1927, when, during his first term of service as Governor of this great Commonwealth, he launched the Anti-diphtheria Campaign.

In a neat booklet of 24 pages, the Chairman of the State Campaign Committee, Frank J. Osborne, Health Officer of East Orange, has published a comprehensive report of the labor and the achievements of that committee and its supporting agencies; a booklet which any physician may have for the asking.

The Journal kept its readers informed of the progress made from month to month during the 2 years covered in that campaign, and in addition to all the information previously given out from his office, Osborne's report now tells the story connectedly, from inception to conclusion; describes methods of procedure; recounts the detailed work in various counties; names those physicians who headed County Committees, and the laymen who contributed to the small Fund—\$2030—made available to the State Committee; and summarizes the general results.

Some months ago the Journal announced that the *State Campaign Committee was closing its work*, believing that it had accomplished all that had been expected or required of it, *but hoped that the County Committees, which had been set up with special care, would continue their activities*, until diphtheria is driven out of the State of New Jersey. At first sight that expressed hope may appear *somewhat bombastic*; but it is not, we assure you, because the desired result is quite within the realm of possibility. In this, our own, State, diphtheria has been successfully driven out and kept out of some communities—East Orange—for instance; elsewhere, it has been driven from a County area; There is no sound reason why it may not be eradicated from a State—and with the conditions now existing, New Jersey can, and should, be the first State to accomplish that "consummation devoutly to be wished". In fact—and let us not lose sight of this—if it be not accomplished, at least approximately, in New Jersey during the next 2 or 3 years, the blame for such failure will fall more heavily upon the medical profession than upon any other group of citizens—and justly so.

We could recommend that you secure and read

the Osborne report; indeed, *we do*; but, that you may have no excuse for not reading some of the most important sections, such selected portions will now be presented. There is, throughout this report, a particular feature to which we direct your special attention; i. e., that the campaign idea originated in this Society, and that the Committee's Chairman, though himself a layman, kept guidance and control of all the scientific, medical professional matters in the hands of the physicians, and in the end delivered the plans for future developments into the hands of committees headed, in every instance, by local physicians. Thus, we quote from the Report, as follows:

Getting under way. On invitation of the President of the Medical Society of New Jersey, Dr. James S. Green, a conference was held in the Princeton Room of the Stacy-Trent Hotel, Trenton, on March 28, 1927, to discuss the launching of a state-wide campaign for the prevention of diphtheria.

Dr. Reik, explaining the object of the meeting, stated that both the State Department of Health and the Tuberculosis League were interested in promoting a state-wide campaign for the prevention of diphtheria. It was agreed, however, that it would be wise to have the state agencies directly interested develop a program together, in which each would play a definite and coördinate part.

The State Campaign, under the designation of The New Jersey Committee for the Prevention of Diphtheria, was actually launched in the Assembly Chamber of the State House, Trenton, on June 29, 1927, when after briefly outlining the purpose of the conference, the Chairman introduced the Honorable A. Harry Moore, Governor of the State, who said in part: "According to the 1920 census of New Jersey, of the 1,000,000 children in the State at this time, 952,890 are under 15 years of age. It is in this group that 87.5% of all cases of diphtheria occur and that 96% of deaths from this disease take place. Extensive progress has been made in the recent past by the State Health Department and local departments throughout the State to prevent this condition, but from 1921-26 inclusive there has been an average of 4681 cases and 439 deaths from diphtheria among children under 15 years of age; a situation which is deplorable. It is my belief that a state-wide campaign can eliminate these 400 and more deaths a year. *Diphtheria can be stamped out and it must be done.*"

Organization of Executive Council. The chief aim of the organization committee was to set up a central Executive Council, representative of all the interest in the State which might advance the campaign. The Council had in mind 2 major policies: First, that this Campaign should, as far as possible, be guided by physicians—it being realized that for ultimate success diphtheria prevention would have to be effected by doctors in private practice. The only alternative was an extension of public clinics which, it was felt, was wrong in theory and to a considerable extent demoralizing in practice. Second, the executive group was determined to see what could be done on a purely voluntary basis without the expenditure of large special funds appropriated or otherwise secured for the purpose.

Organization of County and Local Committees. To the end that this campaign might be directed and largely participated in by the medical profession, Committee Chairmen for the 21 counties were carefully selected medical men. Some were appointed by the County Society, while others were chosen in conference with local professional men and officers of the state and county societies.

Activities of County Committees. The State Department of Health reported that about 125,000 children were immunized in public clinics in the year 1928. In view of the fact that this was about the equivalent of those immunized in the previous 7 years, it is assumed that much of the increase was due to this special campaign. By June 1, 1930, this number had increased to 275,000.

Accurate results for any such campaign are difficult to secure. Although a detailed questionnaire was mailed to each Committee Chairman, it appears that it is far simpler to carry out the activities than to report upon them, so that full records were not had from all and many gaps appear in those received; 13 of the 21 counties, however, reported children immunized, as follows: Bergen, 113,575; Cape May, 1802; Cumberland, 3277; Gloucester, 1200; Hudson, 44,441; Monmouth, 24,225; Middlesex, 3500; Ocean, 141; Somerset, 1499; Union, 15,914, and Warren, 2576—Total 212,150. Burlington reported that 75% of its children had been immunized, and Hunterdon reported 77%.

In the 279 municipalities, 131 Local Chairmen were appointed, the greatest number being 60 out of 72 towns in Bergen. Monmouth County was organized through the County Social Service Organization in its whole 46 municipalities; and Middlesex appointed 11 Chairmen for 12 towns in that county.

In these 13 counties 318,800 pieces of literature were distributed—the largest amount being 192,000 in Hudson and 84,000 in Bergen.

The films were shown 259 times, to a total of 126,600 persons; 75 of these showings were in Bergen and 60 in Hudson; 40,000 persons saw these movies in Bergen County; and approximately an equal number in Middlesex.

Lecturers (to the number of 69) gave 258 talks before a combined audience of 53,465—20,000 of them in Bergen and over 25,000 in Hudson County. This is but a meager presentation of the work accomplished throughout the State but indicates the tremendous amount of time and effort expended in this public health drive, with a minimum of expense. (Hudson County Committee raised and spent \$298.57.)

It is, of course, useless to attempt to show accurately the final result of this campaign and the number of children actually immunized. Those who submitted figures admitted that they were not complete and if those treated in counties making no report, and those immunized in private practice, were added, it is probable that the number would be doubled, at least.

In the fall of 1929 it became apparent that the Committee's effort to popularize the campaign and to have school children immunized in backward communities had met with an encouraging degree of success. However, evidence continued to accumulate to show that more than one-half of the morbidity and from 60 to 85% of the mortality of diphtheria occurred in children in the younger age groups. Figures compiled by the State Department of Health showed that the reduction in morbidity from this disease was primarily in the 5-10 years of age group with but very little decrease in the younger ages. There were still upwards of 6000 reported cases in the State each year with 450 to 500 deaths. The Committee, therefore, determined to shift the emphasis of the campaign to the protection of the pre-school child, feeling that work among school children would continue.

With this fact before the Committee, in analysing the situation, they came to the conclusion that if the disease was ever to be eradicated by the pro-

tection of children before entrance to school, it would have to be done either by a greater increase in public clinics or a corresponding increase in the interest and participation of physicians in private practice.

The following resolution was, therefore, passed: *"It is the sense of this committee that, preferentially, diphtheria immunization should be done by the family physician, but where the establishment of clinics becomes necessary (through refusal or failure of physicians to act. Ed.) to secure immunization in any community, an effort will be made to carry on such work by the county anti-diphtheria committee in coöperation with the county medical society."*

Obviously the problem now to be faced was that of more personal education and contact with parents of pre-school children in order to convince them of the need for this protection. At the same time it seemed desirable to again urge physicians to encourage it and to be prepared to administer it when requested.

The Chairmen of County Committees were, therefore, apprised of this newer aspect of the campaign. A letter was sent from the Chairman of the Executive Council together with a new handbook on the subject, giving detailed information on how to effect a close working contact with parents and with physicians, and ways of following each individual child until a record of immunization had been secured.

Learned from physicians. One of the unsatisfactory phases of any pre-school program is the securing of accurate data of what has been done. Clinic records are always kept and are easily available, but information concerning the number of treatments given in private practice is, with few exceptions, totally lacking in most cities. To make a beginning in remedying this condition, a post card with a few questions was addressed to each physician in the State by the State Department of Health, the cards being signed by and returnable to the Secretary of the State Medical Society, and the following data is, in this connection, interesting and suggestive: (1) Cards sent, 3900; (2) number of replies, with data that could be compiled, 655 (or approximately 1/6 of the total); (3) 332 reported the immunization of 9278 children in 1929; and (4) 314 reported 5666 children immunized between January 1 and June 30, 1930, a period of 6 months.

This information is, so far as is known, the first definite information on this subject ever received in this State. We have since learned that many doctors were interested, and would have given the data, but had not kept it in such form as to have it available; while still others were not certain just how to answer the questionnaire. The experiment indicates, however, that if this method of gathering information were standardized and followed up year after year, it would not only bring much valuable knowledge but would probably be increasingly successful, for it is our experience that most physicians will give this kind of data if they understand that it will be turned to some practical use.

Of the total number of physicians replying to the questionnaire, 538 stated that they were *now urging diphtheria immunization*, and 90 others stated that *henceforth they would encourage it*; 2, only, stated that they did not favor it and would not attempt to promote it.

Assignment of the Committee's activities to appropriate State and local agencies. Early in the summer of 1930, after 3 years of campaigning, the Executive Council was persuaded that the purpose for which the New Jersey Committee for the Pre-

vention of Diphtheria was organized had been accomplished and that no further reason for continuing its existence was apparent. The State had been organized on a county basis with local units in most counties and a mass of educational publicity had been put forth which had aided materially in the protection of 275,000 children. A special program for protecting pre-school children had been prepared and distributed throughout the State, and it appeared that anything more the Committee might do would be in the nature of repetition and stimulation which could more effectively be carried on by local communities themselves. It was felt wise, therefore, to terminate the activities of the Committee but, in so doing, to return, formally, to the State Medical Society, the State Health Department, and the State Department of Public Instruction, the further prosecution of the program, suggesting at the same time, however, that future effort be carried on entirely by the medical profession, health departments and the local groups which had been mobilized by the Committee. It seemed a needless waste of ability and opportunity to allow these coöperative diphtheria committees to disband, when we could so easily be making use of them to continue the New Jersey program.

It was then generally accepted that the pre-school problem had become fundamental, and it was also felt that if diphtheria is ever to be eradicated, from this or any other state, it will require the protection of practically every child before he reaches 1 year of age. Unless this is to be done by the extension of public clinics, under some auspices or other, it is obvious that it must be done in private practice, preferably in the doctor's office. To make this plan effective, it is equally obvious that the education of and assistance to the physician must not stop. Those already convinced of the efficacy of immunization must accept the responsibility of protecting their own clientele; becoming, so far as this disease is concerned, Health Officers to their professional families. The number of physicians who are not yet convinced of the value of these procedures could be disregarded. The major point appeared to be the working out of practical ways, among physicians themselves, for applying these protective methods, each in his own private group practice.

The County and Local Diphtheria Committees were urged, both from the office of the Chairman and through the pages of the State Medical Society's Journal, to continue to "carry on". It was the Committee's firm belief that, however efficient a central state agency might be, the actual work was, in the last analysis, a local problem to be organized, prosecuted and consummated by local people.

Immunization of the Pre-School Child. Without making any effort to ascertain how much work has been done by County and Local Committees during the past 2 years, we suspect that there has been a serious letting-down in their activities. The problem is now almost entirely a matter of dealing with the existing children between the ages of 6 months and 6 years, but, if advantage be not immediately taken of the fact that the balance of our citizens are immune, and if we do not secure a completely protected population by caring for these children, we shall soon lose much of the advantage mentioned.

Toxoid vs. Toxin-Antitoxin. Until quite recently toxoid had met with only a few sponsors in this

country, and they spoke guardedly about its use, for the reason, probably, that our leading laboratory workers in that field refused to accept it as of equal value in comparison with the tried and proved toxin-antitoxin; conservatively holding to the old preparation despite the fact that the Pasteur Institute, and other reliable European bacteriologists were enthusiastic about toxoid, and the French physicians, especially, were reporting such satisfaction from its use. Gradually, however, toxoid has won favor, and to such extent that it now threatens to displace toxin-antitoxin entirely.

In a symposium concerning diphtheria and its prevention by immunization, one of the essayists, Dr. Robert A. Strong, summarized the material scientific factors (New Orleans Med. and Surg. Jour., 84: 746, April 1932), as follows:

Experience and an examination of the recent literature seem to justify the following conclusions:

(1) All children, except those showing decided allergic tendencies, should be given the benefit of active immunization against diphtheria during the pre-school age (6 months to 6 years) without a preliminary Schick test.

(2) The best means of accomplishing this is by the administration of not less than 2 or more than 3, 1 c.c. doses each of diphtheria toxoid (Ramon's anatoxine) at intervals of 3 weeks.

(3) Children of the school age, and adults, show more local and general reactions to the bacterial protein of toxoid, so that an intradermal test for sensitiveness should be performed before administering the immunizing injections. If evidence of sensitiveness appears within 3 days after the intradermal test, the doses of toxoid should be altered, and given as follows: 0.1, 0.25, 0.5, and 1 c.c. of diphtheria toxoid at intervals of 1 instead of 3 weeks.

(4) The great susceptibility of the pre-school child justifies elimination of the preliminary Schick test, but it is desirable to perform a preliminary test on older children, especially in urban communities where the opportunity is favorable for acquiring active immunity from exposure to attenuated infections.

(5) Rural children show a greater susceptibility to diphtheria, as indicated by more Schick positives, than city children.

(6) It is believed that toxoid will soon replace toxin-antitoxin, as an immunizing agent; because toxoid is from 20 to 30% more effective, even when giving only 2 doses; it contains no serum to be sensitized against later therapeutic serums; contains no free toxin; is more stable, and is not affected by freezing.

(7) Toxin-antitoxin should be protected against freezing, which is especially likely with modern electric refrigeration.

(8) In the newer conception of diphtheria immunization, it is believed that many of the difficulties which occur in the developmental period of every new procedure have been overcome. While the whole procedure of active immunization has been greatly simplified, it is still necessary to use a certain amount of discrimination, and the application of any of these methods should remain in the hands of physicians, and should not be entrusted to their subordinates. Moreover, it behooves every physician to put forth every effort to inform himself concerning the latest developments, possibilities, and limitations of active immunization against diphtheria.

Current Events

NEW ORLEANS SESSION OF THE AMERICAN MEDICAL ASSOCIATION

(An abstract of the Official Minutes, made by the Editor, who selected those items which to him seemed most important. The complete report may be found in the A. M. A. Journal of May 21.)

HOUSE OF DELEGATES

First Meeting—Monday Morning, May 9

The House of Delegates convened in the Tip Top Inn of the Roosevelt Hotel, and was called to order at 10 a. m. by the Speaker, Dr. E. C. Warnshuis.

ADDRESS OF THE SPEAKER

The Vice-Speaker, Dr. Albert E. Bulson, Indiana, took the chair while the Speaker read his address, which was referred to the Reference Committee on Reports of Officers:

Members of the House of Delegates:

I am privileged again to preside during your annual deliberations. My studied endeavor will be to do so impartially and justly, and to aid you to record your action expeditiously and constructively. I solicit your assistance and forbearance.

Times change and we must change with them. The sincere student recognizes that we are at present in the vortex of readjustment along every avenue of human endeavor. New professional and public relationships are being formulated and instituted. You who represent and speak for the entire profession of scientific medicine are intimately concerned. On you who constitute this House of Delegates rests the tremendous responsibility of molding and guiding public opinion and formulating the fundamental principles that will bring about acceptable readjustments wherein all the traditions and achievements of the medical profession will be conserved and its relationship to patient and public enhanced. It is not within the province of your Speaker to lead or indicate the scope of your program. That is for this House to determine. Your Speaker's comment is intended to stress the importance of the serious duty that confronts you; to urge that you accept the commission and accomplish well directed leadership. Your constituents have faith and confidence that your wisdom and judgment will be sound and that your final conclusions will be productive of acceptable solutions and leadership that will inspire public endorsement. Your Speaker urges that every delegate pause in thoughtful reflection and accept his rôle in initiating and applying policies that the hour and day impel.

I would urge anew the importance of the most thorough consideration of every proposal that is advanced. Reference committees frequently consider a resolution without having presented to them evidence in support or in refutation of the purpose that it embodies. There have been occasions when the action taken resulted in embarrassment to the Association, its officers and councils. Intelligent action cannot be accomplished without information and discussion. The sponsors of a resolution and those who hold opposite views or opinions should place before the reference committees all data and substantiating or refuting facts. It is the duty of delegates to appear before the reference committees on all referred business and aid in forming tenable recommendations.

It would be highly desirable if all reference com-

mittees would decline to bring in recommendations or express opinions on subjects regarding which no evidence or facts are submitted. This procedure will result in eliminating injudicious action and obviate reversal of opinions and expressions at some subsequent time.

COMMITTEE APPOINTMENTS

May I state anew that committee appointments are made from the list of delegates sent me by your Secretary 30 days before the annual session. In forming committees your Speaker endeavors to give representation to every state. There are 66 committee assignments to be selected from 175 delegates. Every delegate cannot be assigned to committees. To give representation to every state is not possible. I have endeavored to be governed by the Fellowship records of each state, the number of delegates and the state's representation on boards, councils and committees.

REPORTS TO STATE ORGANIZATIONS

On several previous occasions it has been recommended that delegates complete the discharge of their responsibilities and duties by rendering to their respective state organizations a detailed and explanatory report of activities of this House. This is most essential and quite desirable. State organizations stand in need of and are entitled to that information. They need to know the detailed action of this House for guidance in the administration of state organizational affairs. National unity is unattainable without such instructive and guiding knowledge.

Your Speaker acknowledges with sincere appreciation all the many courtesies and the kindly consideration you have accorded. A personal contact with this House of Delegates over a period of years moves me to affirm emphatically that the affairs and interests of organized medicine rest in safe hands. Final judgment is characterized by fairness and wisdom.

ADDRESS OF THE PRESIDENT

The Speaker presented the President, Dr. E. Starr Judd, Rochester, Minn., who delivered the following address, which was referred to the Reference Committee on Reports of Officers:

Mr. Speaker and Members of the House of Delegates:

The report of the Board of Trustees makes evident the increasing amount of work that is demanded of this Association each year. The activities reach into every branch of society and are becoming more important. The annual report shows a marked extension of the work of each department and it also shows that some of these departments are taking on new duties.

In spite of extension of the work demanded of the Association and in spite of the fact that the income to the Association is reduced, nevertheless the Association is in a most satisfactory condition. The Board of Trustees, the General Manager, the Business Manager and the Editor of The Journal deserve much credit for this excellent showing of the Association for the past year.

Suggestions for new methods of practice are constantly being made, many of which have to do with economics of the practice of medicine. It seems to me that organized medicine might have a more definite plan for studying these suggestions and problems. I have been informed that a committee was once in existence for the purpose of studying the various social implications of the

practice of medicine but this was some time ago. This committee was formed to give advice to the Board of Trustees, the House of Delegates and the various councils. It seems to me that a new committee might be formed, or that some member of the permanent staff might be delegated to co-operate with the bureaus and councils, for the purpose of further study of some of the plans in use in European countries, and any new plans suggested. I am not at all sure how much change, if any, should be made in our present plan, but I do think that if there was a committee working on these problems, for possibly the next 5 years, it might be able to suggest some changes that would help solve problems in this country. It would be possible to look into the future of medicine and to be prepared for changing conditions before they arrive, rather than to investigate conditions after the advancing tendencies have been established.

The chairman of the Committee on the Costs of Medical Care has given a preliminary report which suggests that this committee will probably recommend community health taxes.

This committee has done a tremendous amount of work and has accumulated a great deal of material that will need every careful study. In one of its reports, it reviewed an investigation of one community of 38,000 people. As I understand this report, it showed that most of these people had physical defects of one kind or another. The question that arose as I read this report was, first, What is a perfect physical specimen? and, Is it necessary or advisable to attempt to correct all of these so-called defects? I believe that this illustrates some of the problems that must be carefully studied now by members of the medical profession.

Caring for the sick by contract with business concerns and societies has been suggested and tried. *Contract practice* is probably one of the most important questions confronting the profession today. A study of the problem is being carried on by the Bureau of Medical Economics at the present time and also by some state societies. I hope that after these studies have been completed it will be possible to make some definite statement; but it is not conceivable to me that this method of practicing medicine will help to solve our present problems. Undoubtedly this form of practice will continue in certain places; it has been carried too far in other localities, and the results are not wholly satisfactory to the patient. A study of this kind necessarily involves a tremendous amount of work and time, but I feel sure that the final report on this problem will be most interesting and valuable.

It seems to me, and I hope that I see clearly, that there is a better relationship between the physician and the public than there has ever been before. Undoubtedly, if this is so, it is partly due to the public meetings, and to the realization of the value of giving to the press any medical facts or information that we have. Radio programs and health talks assist in this campaign of organized medicine to keep the people informed.

Promoting public health and preventive medicine is one of the definite functions of the medical profession, and this service must not be divorced from medicine. In certain large communities it is necessary to have health officers who devote all their time to this work and who become specialists in this field. Many of the problems associated with the work must be under government supervision. All general practitioners must become familiar with the problems of public health and preventive medicine and must help in every way that they can

to see that these activities are carried out adequately in their communities. At this particular time, preventive medicine is accomplishing a great deal. Organized medicine must do everything possible to escape having this function of the medical profession taken over exclusively by the government.

Protecting society from the irregular practices of medicine is one of the most important functions of the Association. No one realizes the tremendous commercial business carried on by these irregular concerns until such an example is offered as the one exposed this past year. It is the duty of organized medicine to expose these practices, so that the regularly constituted government authorities can prosecute the law violators. The editorial departments of *The Journal* and of *Hygeia* are well used for this purpose when it is necessary. The satisfactory exposure of activities of this kind, it seems to me, is one of the real accomplishments of this association. Prosecution must be by the government. Irregular practices cannot be eliminated, but they can be reduced to a minimum.

GRADUATE TRAINING

Methods of practice are constantly changing, and it is necessary for each physician to continue to study. The physician's life is one of almost constant study. New things are being learned each year concerning the cause and the treatment of disease, and many of the older ideas and methods must be discarded. In order that the physician may keep abreast of the times, he must make trips to large centers of medicine, and attend clinics and courses conducted by experienced teachers where there is great abundance of clinical material. A physician who does not seek these clinics, who does not attend medical meetings, or who does not keep up his reading of medical literature, cannot do the best that might be done for his patients, and cannot hope to progress.

SPECIALIZATION

The House of Delegates last year requested the Council on Medical Education and Hospitals to investigate the entire subject of specialization, and to make recommendations looking to the establishment of proper qualifications of physicians who wish to engage in special practice. Specialization has been greatly overdone.

Nevertheless there are many fields of medicine in which the general practitioner cannot hope to be sufficiently trained. Special knowledge, special training and an abundance of experience are required to make a specialist. One of the duties of organized medicine is to make it possible for society in general, as well as the medical profession, to find out who are qualified specialists in the various fields. Furthermore, I believe that there is nothing more important than the regulation of specialization and the proper qualification of specialists at the present time.

Some of the specialties have established qualifying boards and are attempting to further the plan of certifying as to special qualifications. I have been informed that representatives of several clinical specialties have suggested that the National Board of Medical Examiners state its present attitude concerning the part it is willing to take in assisting the qualifying boards in the clinical specialties. The subject of specialization has been discussed in a preliminary manner at several informal conferences by the representatives of certain specialties, and a subcommittee of the National Board of Medical Examiners. The consensus of

opinion in these conferences has been that *it is desirable that some dependable method of certification be devised* by each of the special clinical fields, and, further, that there should be some central organization of the several qualifying bodies to insure better coördination. It has been suggested, also, that the American Medical Association become responsible for the publication of *official lists of qualified specialists*.

Several sections of the Association have already accomplished a good deal toward determining and regulating the qualifications for specialization in their particular fields. It seems to me that it is advisable to do all that we possibly can to promote this activity among the sections. If the American Medical Association, coöperating with the Association of American Medical Colleges, state boards of medical licensure, the National Board of Medical Examiners, the American College of Surgeons, the American Board of Ophthalmic Examinations, the American Board of Otolaryngology, the American Board of Obstetrics and Gynecology, and such other specialty boards as may be developed, can officially regulate specialization, it will have accomplished much.

HOSPITAL BEDS FOR VETERANS

One of the most important problems before society and the medical profession is the one dealing with the best plan for care of war veterans. Some of these men are sick and must be cared for. The medical profession is willing and anxious to see that the best medical attention possible is provided for them. It wants them to have exactly the same care that all other orders of society are given. It does not want them to be pauperized and to be placed in hospitals when they are not sick. It seems to me that the federal government has built enough hospitals. There are many unoccupied beds in civilian hospitals that might well be used in the care of veterans who are sick.

It is fortunate that these affairs are in the hands of an industrious and intelligent committee. The medical profession can feel hopeful and confident that the efforts of its committee, combined with those of the American Legion and the American Hospital Association, will bring forth the proper solution of this problem.

NEW BUILDING

The thing this Association needs as much as anything else is a new building for its headquarters offices. The Board of Trustees is studying this problem and I hope it will soon find that it is feasible to proceed. More space is needed adequately to house the departments as they are at the present time. Progress is being hampered in many ways by not having sufficient and good space in which to work. Not only would a new building, properly planned and adequately equipped, permit the activities of organized medicine to be more effectual, but the added possibilities for progress and development would help to keep the American Medical Association in its position of the largest and most important medical organization in the world.

Address of President-Elect

The Speaker then presented the President-Elect, Dr. Edward H. Cary, Dallas, Texas, who delivered the following address, which was referred to the Reference Committee on Reports of Officers:

Mr. Speaker and Members of the House of Delegates:

I come to you after a year of partial observa-

tion of the medical activities of our country. There are many questions which will undoubtedly be brought to your attention; hence it will be unnecessary for me to mention more than 3 or 4 which I would like to accentuate.

DUAL RELATIONSHIP OF PHYSICIANS

I have been greatly impressed with the dual responsibility of the doctor. His personal relationship to patients is so vital that it must always be kept in the foreground. To preserve this intimate quality of service embodies human happiness by meeting human needs and should be harmonized with the continued flexible growth of the medical profession. Our civic relations demand that we take part in public health service. We are forced to become interested in the activities of lay organizations which are striving to solve health problems. Many of these problems have arisen from an awakened public health consciousness, which has come from the revelations of medical research. The public is groping for a more widespread application of what it believes to be medical discoveries. We are loath to believe that the enlightened public desires to interfere with the private practice of medicine, but social trends which involve medical practice should be studied, for, after all, the practice of medicine is a social function.

APPOINTMENT OF A COMMITTEE TO CO-OPERATE WITH BUREAU OF MEDICAL ECONOMICS

The profession must not be deterred from contributing its weight of opinion and battling for leadership in lay organizations which are interested in health matters. In my opinion, the Board of Trustees should be authorized to appoint a committee to coöperate with the Bureau of Medical Economics, this committee to study and aid in reconciling conflicting views related to the practice of medicine. These may include better coöperation on the part of the members of the profession, and a better understanding of the needs of the people as related to the individual practitioners and public health service, developing a formula outlining to what extent public health service will be acceptable and practical. This committee should consider, too, the numerous studies being made by the profession and others of the so-called high cost of medical care, reconciling conflicting views as they may affect the practice of medicine, and making available the plan most adaptable to conditions in communities seeking relief. This study should include methods of handling indigents and those of limited financial resources as a civic responsibility. For the underprivileged, some plan should be developed whereby the family may budget its health needs, an effort being made to eliminate the middleman but to conserve the right of the patient to select his doctor and to preserve the right of the physician to open opportunity on equal terms with his brother practitioner.

This committee should help to develop a plan of coöperative medicine for greater efficiency, applicable to each community, suggesting methods of practice for the purpose of making certain a correct diagnosis, partnerships between doctors being unnecessary. The fee should be commensurate with the ability of the patient to pay. There would be, through the committee, several helpful minds added to the Bureau of Medical Economics.

DEVELOPMENT OF POST-GRADUATE INSTRUCTION

I am also impressed with the need of a comprehensive effort on the part of the Council on Medical Education and Hospitals to develop post-graduate instruction. There are many component and associated medical societies which are now carrying on intensive post-graduate work. These societies need the active aid of a committee representing the American Medical Association through the Council on Medical Education and Hospitals. This committee can suggest appropriate and non-conflicting dates, can list available instructors, and can suggest subject matter most needed for elucidation. Regional clinical meetings for intensive study should be encouraged in certain geographic localities, to discourage a multiplicity of like endeavors which are apt to lessen professional interest or conflict with the meetings of the state medical societies.

Efforts should be made to coöperate with special societies now doing post-graduate work, and to encourage all such efforts when accomplished through our medical organization. It would seem highly desirable that the House of Delegates suggest to the Board of Trustees that a committee be appointed, and, with the aid of the Council on Medical Education and Hospitals, accomplish these suggestions with nominal cost to the American Medical Association.

NEED FOR CONSERVING RESOURCES

Though I am sure that the economic trend is strongly for retrenchment throughout the land, we should consider seriously any suggestion that would retard the growth of our organization. We have a tremendous task ahead of us to preserve the rights and privileges that have come through years of endeavor. I fear that the average member of our profession gives little thought to the value of this collective effort. I sometimes wonder whether we realize what it means to the individual physician. To make effective this effort to advance the science and practice of medicine and to preserve its endowments, the Association should be made as strong financially as it is numerically. It is true that we have deliberately defended the people from many abuses, and such efforts have been rewarded with suits for large sums of money. Legal defense is always expensive, but the members of the profession in the localities immediately affected are helpless if the American Medical Association does not assume the task of exposure and defense.

No other organization in the world is giving to its members so much. Its scope embraces literature, news and information of all kinds, not to speak of the associational advantages. The British Medical Journal, for instance, which in size and importance is next to ours, costs \$15 annually. Other foreign journals of less importance cost relatively the same, while the annual income of the average American physician is greater. The new revenue bill will undoubtedly carry increased postal rates which will add greatly to the cost of the Journal. It would seem unwise to jeopardize our progress by reducing the cost of the Journal to our members. And reduction would be a backward step and would actually amount to very little to the individual member. I hope that any constituent society which has expressed itself in favor of a reduction in the present price of the Journal will reconsider its decision, for the beneficent influence of the organization should not be curtailed. If the medical profession is to meet its

obligations and responsibilities successfully in this new commercial age, it must be able in all respects, and fully fortified.

NEW BUSINESS

Resolutions on the Care of Veterans

Dr. H. H. Shoulders, Tennessee, presented the following Resolution on the Care of Veterans, which was referred to the Reference Committee on Legislation and Public Relations:

Resolved, By the House of Delegates of the American Medical Association that, in furtherance of the plan and policy of a resolution with regard to the governmental policy of rendering medical and hospital benefits to veterans with non-service connected disabilities, adopted in Philadelphia, at the 1931 session, the principles of which we hereby reaffirm, the House of Delegates hereby gives its approval to the draft of a proposed amendment to the World War Veterans' Act, 1924, which is as follows:

"AN ACT TO AMEND THE WORLD WAR VETERANS' ACT,
1924

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled:

SECTION 1. That Paragraph 10 of Section 202 of the World War Veterans' Act, 1924, approved June 7, 1924, as amended by Acts approved March 4, 1925, July 2, 1926, and July 3, 1930, is hereby amended by striking therefrom the following: 'The director is further authorized, so far as he shall find that existing Government facilities permit, to furnish hospitalization and necessary traveling expenses incident to hospitalization to veterans of any war, military occupation, or military expedition, including those women who served as Army nurses under contracts between April 21, 1898, and February 2, 1901, and including persons who served overseas as contract surgeons of the Army at any time during the Spanish-American War, not dishonorably discharged, without regard to the nature or origin of their disabilities.'

SECTION 2. The World War Veterans' Act, 1924, is further amended by adding thereto the following:

'(1) Each honorably discharged veteran of any war, military expedition, or military occupation with 90 days or more of actual service, shall be entitled to the following disability benefits for disabilities not resulting from injury or disease suffered or contracted in military or navy service:

A. A cash benefit of \$12.50 per week during any period of total disability from disease or injury.

B. A hospital benefit of \$4 per day during any period of actual and necessary hospitalization.

(2) Such benefits shall be payable to the veteran upon satisfactory proof of the disability, furnished by the veteran to the Veterans' Bureau, upon forms and in accord with rules to be prescribed by the Director of the Veterans' Bureau; each such proof to include the supporting statement of an attending physician of good standing and repute, and, in the case of hospital benefit, the certificate of the superintendent or person in charge showing actual confinement in a hospital approved by the Director for service to veterans;

(3) *Provided*, no cash benefit shall be payable under this section to a veteran for any condition for which he is paid disability allowance for total permanent disability under the amendment to the World War Veterans' Act of July 3, 1930; and no benefits under this section shall be paid to any vet-

eran for any disability resulting from his own wilful misconduct; nor for any disability for which the veteran is entitled to hospitalization under paragraph 10 of Section 202 of the World War Veterans' Act, as amended by this Act, in a hospital under the control of the Veterans' Bureau.

(4) Whenever malingering or fraudulent collusion on the part of an attending physician is suspected by the Director, any veteran claiming benefits under this section may be ordered by the Bureau to a Veterans' Bureau or to a veterans' hospital for examination, observation and report as to the existence of a condition entitling him to the benefits claimed, pending compliance with which order payment or benefits shall be suspended; and in all cases hospital records of the claimant shall be open to the inspection of the bureau and the claimant shall be subject to examination under the provisions of section 203 of the World War Veterans' Act, 1924, as amended.

(5) The Director of the Veterans' Bureau shall furnish to each living veteran who may be entitled to benefits under this section a "Disability Benefit Certificate," reciting the benefits provided herein and the terms and conditions under which they may be paid and received, together with a blank form on which application and proof for such benefits may be made. The Director shall enforce the provisions of this section through and as a department of the Division of War Risk Insurance of the Veterans' Bureau.

SECTION 3. The provisions of Section 1 hereof shall take effect 6 months from the date of this enactment; and the benefits provided in Section 2 shall accrue and commence 6 months from the date of enactment."

Be it further

Resolved, That the proper officers of this association be instructed to take steps to present this matter properly to every important local Legion Post in the United States, with a view to securing their endorsement of the amendment. Be it further

Resolved, That the Board of Trustees be authorized and requested to place sufficient funds at the disposal of the Legislative Committee to carry on this activity, and, be it further

Resolved, That the Legislative Committee be empowered and directed to employ a full-time personnel for the purpose of carrying this work forward. Be it further

Resolved, That the Legislative Committee be instructed to present the proposed amendment to the Congress of the United States for consideration, when a reasonable number of the local Legion Posts have endorsed it. Be it further

Resolved, That, in the interest of harmony, the Legislative Committee is empowered to make changes in the wording of this proposed amendment except that there shall be no abandonment or compromise of the fundamental and underlying principles; to wit:

1. The cessation of the hospitalization of veterans with non-service-connected disabilities, except as set out in the first part of paragraph 102-10 of the World War Veterans' Act, and in the proposed amendment.

2. That the veteran himself shall have the right to select his physician and hospital, subject to the reasonable regulations and approval of the Veterans' Bureau.

Communication on Appreciation of Auxiliary

The Speaker referred to the Reference Committee on Miscellaneous Business the following communication:

If the House of Delegates would send a letter

of appreciation to the Auxiliary it would do more to stimulate interest than anything that you and I and all the Auxiliary leaders put together could do. Their letter, after being read at the meeting, could probably be placed in the Exhibit.

Report of Board of Trustees

Dr. Edward B. Heckel, Chairman, presented the following report:

(1) Relative to the resolution presented by Dr. Gorsline, of Michigan, the Board of Trustees reports that it has been giving every possible aid to the Bureau of Medical Economics in order to enable that bureau to secure and publish information on the subjects mentioned, and that as it becomes apparent to the Board that increased budget and personnel are needed, the Board of Trustees will attempt to provide what is necessary.

(2) The Board of Trustees favors the recommendation contained in the resolution introduced by Dr. William R. Molony, California, relative to gathering and publishing in book form the legal decisions published in The Journal of the American Medical Association from week to week. The Board feels, however, that these should be provided to the constituent state associations at cost.

(3) Relative to the resolution introduced by Dr. Edgar A. Hines, South Carolina, the Board of Trustees reports that careful consideration was given to the matter of reducing the subscription price of the Journal before Dr. Hines' resolution was introduced as well as on other occasions, and it was not deemed wise or expedient to make any reduction at the present time.

On motion of Dr. Arthur J. Bedell, New York, seconded by Dr. Mather Pfeifferberger, Illinois, and carried, the report of the Board of Trustees was adopted as a whole.

Report of the Reference Committee on Amendments to the Constitution and By-Laws

Dr. N. B. Van Etten, Chairman, presented the following report:

(1) Your Reference Committee on Amendments to the Constitution and By-Laws has carefully considered the proposal of Dr. D. E. Sullivan, New Hampshire, to amend Section 2 of Article 5 of the Constitution so that the section shall read as follows:

The House of Delegates is composed of Delegates elected by the constituent associations and by the Sections of the Scientific Assembly, and of Delegates from the medical departments of the Army and the Navy and the Public Health Service and Veterans' Bureau appointed by the Surgeon-General of the respective departments and by the Medical Director of the Veterans' Bureau. The Trustees, the ex-Presidents of the Association and the members of the several councils shall be ex-officio members of the House of Delegates without the right to vote, provided that members of the Councils who are also elected Delegates may exercise all of the rights of elected Delegates.

Under this proposed amendment the Medical Director of the United States Veterans' Administration would be made a member of the House of Delegates.

Your Reference Committee believes that the designation of any one individual, regardless of qualifications, as a member of the House of Delegates violates the democratic principles on which the House of Delegates is organized.

Your Reference Committee further believes that the fact that only 457 of the 1668 full-time physicians who are members of the United States Vet-

TUBERCULOSIS ABSTRACTS

A Review for Physicians

ISSUED MONTHLY BY THE NATIONAL TUBERCULOSIS ASSOCIATION

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WHEN the idea of periodic health examinations was proposed a few years ago, it was hoped that many cases of early tuberculosis would be discovered by that means. Experience has somewhat dampened this early enthusiasm. This disappointment, however, does not warrant the conclusion that the periodic health examination cannot serve the hoped-for end. The reasons why better results were not achieved were analyzed by a special committee and published in "The Health Examiner," a publication of The Greater New York Committee on Health Examination.

TUBERCULOSIS AND THE HEALTH EXAMINATION

In spite of much popular education the majority of cases of tuberculosis are not discovered until the disease is already well advanced. Williams and Hill, who studied the experiences of 1,499 patients in tuberculosis sanatoria, found that 12% on admission to the sanatorium were classified as minimal tuberculosis, 43% were moderately advanced, and 45% were far advanced.

The family doctor is on the firing line. The early symptoms of tuberculosis are usually indefinite and the patient first of all consults the doctor "around the corner." We cannot, however, always charge the delay in making a diagnosis to the doctor. More frequently the patient is himself responsible for the delay or the disease itself may be so insidious as to cause no alarming symptoms until the advanced stage has been reached. Williams and Hill found that of the 1,499 patients interviewed, 33% sought medical advice within one month after the first symptom appeared; 29% allowed a period of one to five months to elapse before going to the doctor; 9% waited from six to eleven months; 24% delayed from one to twenty years.

Delay in Diagnosis

Tuberculosis organizations have repeatedly given forceful publicity to the early symptoms of tuberculosis including the urgent advice "to let your doctor decide." Such publicity almost invariably calls forth from certain laymen the criticism that the doctor is incapable of deciding. While such comments are doubtless unfair, they do raise the question as to how promptly the diagnosis is made by the physician, once the patient has come to him.

Williams and Hill found that the physicians took less time to decide that their patients had tuberculosis than the patients required to become aroused to their need of medical advice. At least 43% of the group were diagnosed within a month of the first visit and almost one-half of these were told they had tuberculosis at the first consultation. This record is distinctly commendable. The less favorable side of the picture is that 16% of the patients had to wait a year or more before they were told they had tuberculosis.

A more severe test of the ability to make diagnoses early may be made by analyzing only the group diagnosed as "minimal," of which there were 181 (out of the total of 1,499). Of this minimal group 70 came to the doctor within one month of the appearance of the first symptom. Twenty-six (37%) of them were diagnosed within the first month and 15 (21%) waited a year or more before a diagnosis was made.

What is the hope of discovering early tuberculosis among patients who come complaining of no particular symptom but simply for a health examination? The danger signs are frequently overlooked, perhaps because doctors are not always "tuberculosis conscious." The early signs of tuberculosis (with the exception of hemoptysis and pleurisy) seldom direct attention forcibly to pathological changes in the lungs. The symptoms are usually vague and indefinite. Lawrason Brown has said it might be well for every doctor to hang a sign in his office reading "Remember Syphilis and Tuberculosis" for these are the two great simulators of other diseases. It is true that one should approach each patient with an open mind and make deductions only from the findings,

but since we "see what we know" it is certainly not amiss to keep in the background of one's mind the possibility of tuberculosis in every case.

Finding Tuberculosis In Youth

To be "tuberculosis conscious" is particularly necessary when examining youngsters in their late teens and early twenties. The dramatic rise of the tuberculosis death rate in the age period 15 to 25 contrasted with the low rate during early childhood, suggests that adolescence is for many the transition period; indeed the critical period for many who develop tuberculosis.

Most cases of adult type tuberculosis represent a super-infection on previously infected soil. In the adolescent period the sleeping embers of tuberculosis seem to burst into flame within a relatively short time. Then it is that we should be unusually alert for any danger signs of developing tuberculosis. Nor should it be forgotten that certain types of tuberculosis progress rapidly, as for example the subapical type in which the disease seems to develop acutely in the lung region immediately below the clavicle. From that focus it may spread or gradually become chronic, and the suspicion of some is that apical type generally considered to represent very early pathological involvement, is but the remains of a subapical, acute process. Other forms of acute development are the miliary and bronchopneumonic types.

History and Physical Signs

Pulmonary tuberculosis may exist without any suggestion of ill health. While the history at best can be only suggestive, a careful history-taking is important. Underweight is no measure of the presence of tuberculosis, although rapid loss of weight is very suggestive. Of great significance is any suspicion that the patient has been in contact with a case of tuberculosis in the family, particularly if exposure has taken place during childhood. The constitutional symptoms such as fever, undue fatigue, rapid pulse, loss of weight, night sweats, draw one's attention to no special organ. Localizing symptoms such as cough, expectoration, hemoptysis, pleurisy, focus our attention on the lungs. Hemoptysis and pleurisy with effusion are strongly presumptive. If there is one typical symptom of tuberculosis it is fatigability. The more obscure the fatigability is, the greater is the suspicion that tuberculosis is its cause.

Skill in interpreting physical signs of tuberculosis lesions in the lungs depends on an understanding of the pathological mechanism. The variations are too many to discuss here. One

general principle is that rales in the upper segments of the lungs warrant the presumption of pulmonary disease, probably tuberculosis. The nature of the rales whether fine, crepitant, or moist, makes little difference—any rale that persists after the patient coughs should excite the suspicion that tuberculosis is present. To elicit rales the patient is instructed to cough slightly at the end of each expiration. Rales, if present, will be heard immediately after the cough and perhaps at the beginning of the next inspiration. The time has passed when we wait for the finding of tubercle bacilli before venturing a diagnosis. The sputum should be examined repeatedly, but a negative finding in no wise excludes the presence of early tuberculosis.

In all instances in which the chest examination reveals abnormal signs, a radiograph should be made. In patients with suggestive symptoms and negative physical signs, a radiograph should also be made, for some early lesions can be discovered only in this way.

Should the tuberculin test be included? Early statistics created the impression that all adults and nearly all children reacted positively to the test. For that reason the value of the test was unwarrantedly discounted. Later observations have shown that infection is by no means so widespread. A positive reaction in an adult is of scant significance, but a negative reaction speaks volumes; it almost certainly excludes tuberculosis.

A Group Disease

Tuberculosis should be regarded as a group disease. Hence when a case of tuberculosis has been discovered the entire family should be examined, not only at that time of discovery of the active case, but also periodically thereafter. The examination of the children should include the tuberculin test and, if the reaction is positive, a radiograph. In examining contacts, one should not omit the older persons of the household. It happens only too often that the grandmother with a "summer cough" or the elderly uncle with a "bronchitis," harbor in their fibrotic lungs tubercle bacilli which they excrete over a period of years without ever being aware of it.

Periodic health examinations should be one of the best case-finding methods known. What is necessary is an understanding of this protean disease, a constant awareness of it and thoroughness in the ordinary techniques known to every doctor.

The Health Examiner, April 1932.

erans' Bureau, have membership in the American Medical Association, that only 257 of them are sufficiently interested to become Fellows of the American Medical Association, and that these members are distributed among 41 constituent organizations, furnishes sufficient reason for denying special representation in the House of Delegates and therefore your Reference Committee disapproves this proposal to amend the Constitution.

(2) Your Reference Committee believes that Sections 1 and 2 of Chapter XI of the By-Laws on Membership and Fellowship in the American Medical Association are sufficiently definite in their provisions concerning dual memberships and that strict observance of these provisions should be insisted on.

(3) Your Reference Committee approves the recommendation of Dr. Isaac A. Abt, Delegate from the Section on Diseases of Children, to amend Section 1 of Chapter XIV of the By-Laws by changing the title of the Section on Diseases of Children to Section on Pediatrics, substituting the word "Pediatrics" for the words "Diseases of Children."

N. B. Van Etten, Chairman
J. W. Amessee
John H. O'Shea
H. M. Johnson
Walter F. Donaldson

Dr. Van Etten moved the adoption of the report as a whole. The motion was seconded by Dr. Arthur J. Bedell, New York, and carried.

It was moved by Dr. Van Etten that the By-Laws be amended so that the Section on Diseases of Children be now designated "Section on Pediatrics". The motion was seconded by Dr. H. B. Everett, Tennessee, and carried.

Remarks of Dr. T. C. Routley

The Secretary presented Dr. T. C. Routley, Secretary of the Canadian Medical Association, who addressed the House as follows:

Mr. Speaker, Mr. President and Gentlemen:

It gives me, indeed, a great deal of pleasure to come here this morning and present to you greetings from the Canadian Medical Association, of which body I have the honor to be General Secretary.

There is a story told up in our country about 2 railroads, one of which you no doubt have heard, the other I doubt you have heard of. One is called the Canadian Pacific Railway and the other is the Cumberland Railway. The Canadian Pacific Railway has many thousands of miles of rails. The Cumberland Railway is a little organization with 5 miles of rails.

The President of the Cumberland Railway decided one time that he would like to have a pass over the Canadian Pacific, so he went up to the then President, Sir William Van Horn, and presented his card as President of the Cumberland Railway. Sir William, in inviting him in, said, "I never heard of this railway."

He said, "Sir William, it is not as long as yours but it is just as wide."

The Canadian Medical Association, in stature, is dwarfed beside you, but in its ideals and aspirations for progressive medicine, I trust that it is just as wide. I know that our men always delight in coming to your meetings, and you have always extended to them, as you have to me, a most cordial invitation and a delightful welcome. On their behalf and on my own behalf I desire to thank you.

I hope that some day this great body will see fit to join hands with us and meet in Canada. We would give you a most cordial welcome, indeed.

Report of Reference Committee on Rules and Order of Business

Dr. R. W. Fouts, Nebraska, read the following report of the Reference Committee on Rules and Order of Business:

This report deals with the report of the Judicial Council except that part which was referred to the Reference Committee on Amendments to the Constitution and By-Laws.

Your Reference Committee endorses the sentiment expressed in the second paragraph of the Council's report, calling attention to the danger of attempting to overturn some of the older traditions by submitting untried methods of practice and suggests the continuance of this procedure.

Your Reference Committee likewise believes that the present Principles of Medical Ethics is adequate and should be strictly adhered to in dealing with "Patents and Perquisites".

Your Reference Committee calls attention to the incorrect address of Dr. Donald Macrae, Jr., deceased, and in order that the records may be correct, recommends that this be changed to Council Bluffs, Iowa.

Your Reference Committee also recommends that some suitable memorial be devised for those who die during their term of service as officers of the American Medical Association.

Respectfully submitted.

Bertram L. Bryant, Chairman
R. W. Fouts, Secretary

Dr. Fouts moved that the report be adopted. The motion was seconded by Dr. Arthur J. Bedell, New York, and carried.

Resolutions on Closer Coöperation Between the County Societies and the American Medical Association

Dr. Southgate Leigh, Virginia, presented the following resolution, which was referred to the Board of Trustees:

Whereas, The profession is confronted with difficulties that are both serious and urgent; and

Whereas, There is pressing need for close and active coöperation on the part of all component societies, as well as the individual doctors; and

Whereas, With such earnest coöperation many problems may be readily solved; therefore be it

Resolved, By the House of Delegates of the American Medical Association that the officers and Trustees of the Association be instructed to communicate with the various constituent state societies, advising them of the difficulties and suggesting that they take the following steps:

(1) To keep in close touch with the national organization.

(2) To strengthen the county society units, and as far as possible to arrange for an organization in each county in the state.

(3) To continue with renewed energy the work of the various public relation committees in states and counties; and

Resolved, That the Delegates from each state society present this matter vigorously and promptly to their respective organizations; and further

Resolved, That the officers and trustees communicate with the Woman's Auxiliary to the American Medical Association, requesting its con-

tinued active coöperation with the profession and urging that local auxiliaries be formed in connection with every county society.

Report of Reference Committee on Medical Education

Dr. Irvin Abell, Chairman, presented the following report:

(1) The Reference Committee has fully considered the report of the Council on Medical Education and Hospitals and desires to offer its commendation on the excellence of the amount of work detailed therein.

It is gratifying to note that coöperation of all but one of the acceptable medical schools was secured in publishing a record of the hospital training of their graduates, affording a distinct stimulus to graduate or fifth year education. The discouragement of the graduation of unqualified students is approved. It is suggested that a copy of the graphic chart on page 109 of the Handbook, showing the percentage of "repeaters", be sent to the schools listed therein.

It is further suggested that the resolution of the Council pertaining to the classification of foreign schools be affirmed.

The certification of specialists presents a problem of great practical importance and offers many angles to which the Council is devoting study but on which it is not yet prepared to make recommendations.

It is interesting to note that the number of medical graduates in the United States shows a steady increase, representing about 50% more than the loss by death of the medical profession each year.

The hospital statistics presented by the Council show the results of decidedly active supervision with the resultant desire on the part of governing boards to comply with the essentials for registration and as well of an appreciable number for approval for internships and for residency in specialties; 6612 are now on the register, while 684 have been approved for internships and 371 approved for residencies in specialties, offering at the present time facilities in graduate training in excess of the demand.

With the view of correlating hospital activities to meet the requirements of today to the end that its benefits may accrue in greater measure both to the physician and the patient, the Council on February 14, 1932, amended the "Essentials of a Registered Hospital" as adopted by the House of Delegates in 1928 and requests approval of these "Essentials" in the form submitted in supplement A, page 115, of the Handbook. The Reference Committee recommends this approval.

(2) The "Essentials of an Approved Clinical Laboratory" were adopted by the Council in compliance with instructions received from the House of Delegates in 1932. For the more practical rating of laboratories, the Council at its February meeting adopted a statement of the "Essentials for the Listing of Physicians Specializing in Clinical Work and Pathology" and requests approval of the House of Delegates for these "Essentials" as submitted in supplement B, page 118, of the Handbook. The Reference Committee recommends this approval.

(3) The "Essentials of an Approved Department of Radiology and Roentgenology" were approved by the House of Delegates in 1929. For the more satisfactory classification of such laboratories the Council in February, 1932, adopted "Essentials for Admission to List of Physicians Specializing in Radiology" and requests approval for these "Essentials" as submitted in Supplement C, page 121.

of the Handbook. The Reference Committee recommends this approval.

(4) The following resolution, introduced by Dr. G. Henry Mundt, Delegate from Illinois, was considered by the Reference Committee:

Resolved, That it is the opinion of the House of Delegates of the American Medical Association that physicians on the staffs of hospitals approved for intern training by the Council on Medical Education and Hospitals should be limited to members in good standing of the American Medical Association, this ruling to apply to all hospitals except federal, state, county and municipal institutions.

The Reference Committee regards this resolution as an expression of opinion in favor of a standard which should be striven for, and as such approves it, recognizing at the same time that it may not be desirable at present to make it a hard and fast rule.

(5) The Reference Committee has considered the resolution introduced by Dr. C. B. Wright, Delegate from Minnesota, pertaining to the Surgeon General's Library at Washington, and recommends the adoption of the resolution.

Irvin Abell, Chairman
William Allen Pusey
F. S. Crockett
Seale Harris
J. F. Burnham

Dr. Abell moved that the report be adopted as a whole. The motion was seconded by Dr. Mather Pfeifferberger, Illinois, and carried.

It was moved by Dr. Abell that the motion of the House adopted a year ago, with reference to the location of the Surgeon-General's Library, be rescinded. The motion was seconded by Dr. Albert E. Bulson, Indiana, and carried unanimously.

Report of Reference Committee on Reports of Officers

The Vice-Speaker, Dr. Albert E. Bulson, took the chair.

Dr. C. E. Morgan, Chairman, presented the following report:

ADDRESS OF SPEAKER

(1) The speaker has called attention to the tremendous responsibility resting on the House of Delegates of molding and guiding public opinion and formulating the fundamental principles that will bring about acceptable readjustments wherein all the traditions and achievements of the medical profession will be conserved and its relationship to the patient and public enhanced. We heartily approve of that recommendation and in furtherance further recommend that the Delegates of the House of Delegates of the American Medical Association tender to their state societies at the annual meeting a full report of the transactions of the House of Delegates of the American Medical Association.

(2) The Speaker stressed the point that all persons presenting resolutions to the House of Delegates should appear before the Reference Committees considering the resolution introduced and give reasons for its adoption, so that the Reference Committee should have full information concerning the offering of the resolution; and, further, those members who are opposed to resolutions offered in the House of Delegates should also appear and give argument sustaining their objections. Unless this procedure is followed, a Reference Committee

cannot render to the House of Delegates an intelligent and comprehensive opinion.

(3) In order that the Tuesday afternoon executive session shall not aimlessly concern itself with irrelevant matters, your Speaker recommends that you authorize your Secretary, Chairman of the Board of Trustees and Speaker to formulate a program of pending questions that the year's activities and experience indicate as meriting executive consideration. We recommend the adoption of that portion of the Speaker's address.

ADDRESS OF PRESIDENT

(4) In the portion of the President's address which relates to the study of economics, he says: "It seems to me that a new committee might be formed, or that some members of a permanent staff might be delegated to cooperate with the Bureaus and Councils for the purpose of further study of some of the plans in European countries and any new plan suggested. I am not at all sure how much change, if any, should be in our present plan, but I do think that if there were a committee working on these problems for possibly the next 5 years, it might be able to suggest some changes that would help solve problems in this country."

Your committee suggests that the study of medical economics deserves careful consideration and has already been studied by the Bureau of Economics and by the Committee on the Costs of Medical Care.

If it seems desirable that a permanent committee be appointed to study these problems in European countries and in our own country, as suggested by the President, we recommend that this committee be appointed by the Board of Trustees and that the committee cooperate with the Bureau of Medical Economics in the study of these problems.

(5) We have given consideration to that portion of the President's address in which he says, "There has been a tendency in some specialties and in certain communities to turn over certain cases to nurses, midwives or technicians. So far as I can see, there is no way to make the conscientious practice of medicine an easy task. And, furthermore, it has been asserted repeatedly that there are too many physicians. Although I do not believe that there are too many physicians, nevertheless, I do think that in order to give the people the best care, the actual practice of medicine must be kept in the hands of physicians."

We heartily endorse that statement in the President's address on the principle that all medical work be done by medical men.

(6) We especially call attention of every member of the House of Delegates to the President's comment on "graduate training". This part of his address is too long to incorporate in the report, but it should be the conscientious duty of every member of the House of Delegates to read, consider and assimilate the good that is contained in these paragraphs. We heartily recommend the President's opinion on graduate training.

Concerning the President's comment on "specialization", we suggest the importance of the study of the question of proper classification and regulation of specialists. Last year, the House of Delegates requested the Council on Medical Education and Hospitals to investigate the subject of specialization, and we are awaiting their report on this subject.

ADDRESS OF PRESIDENT-ELECT

(7) With reference to the President-Elect's comment on the development of a nation-wide scheme of post-graduate medical instruction by the Council on Medical Education and Hospitals, we realize the importance of post-graduate medical instruction and recommend that the Council on Medical Education and Hospitals of the American Medical Association promote this work by urging the state medical societies to conduct regional clinical meetings, and that the Council endeavor to provide, as far as possible, suitable information regarding material for such instruction.

(8) In regard to the President-Elect's comment on a new building for the Association, we understand that the careful consideration of the erection of a new building is in the hands of the Board of Trustees and we may well await the result of their deliberation.

C. E. Mongan, Chairman
W. R. Steiner
W. A. Cook
J. F. Smith, Secretary

Dr. Mongan recommended that the fourth section of the report be referred to the Board of Trustees, as it might entail the expenditure of money. Without further action, the Vice-Speaker referred this section of the report to the Board of Trustees.

Dr. Mongan moved the adoption of the report as a whole, excepting the portion that was referred to the Board of Trustees. The motion was seconded by Dr. J. Newton Hunsberger, Pennsylvania, and carried.

At this conference the duties of the Medical Advisory Council were explained by Dr. Barker as simply advisory, not on policies but on individual problems which came up for solution. The Council has no initiative, no power, and no spontaneous action is taken, except in answer to definite requests for advice regarding specific problems. Dr. Barker stated that, so far as he knew, the Medical Council had never recommended the providing of beds in veterans' hospitals.

Dr. Dublin then explained that on request he had outlined a tentative plan along actuarial lines as to the number of beds necessary to carry out fully the provisions of the law if all the disabled veterans were to be taken care of. He stated that 129,000 beds would be necessary, but they never had recommended providing these beds and in fact their estimates were made for the purpose of showing how expensive the carrying out of this plan would be.

Dr. West spoke from the standpoint of the American Medical Association, urging the stopping of building of federal hospitals and the use of nonfederal hospitals of the country for the care of veterans. He felt that the government should take care of the veteran disabled because of service-connected injuries or illnesses, of nervous and mental and of tuberculosis cases, and possibly of some other chronic cases. He also expressed the opinion that Mr. Cliff's idea of getting service in local institutions for emergency cases might be adopted, but he urged that the man whose disability has no service connection and who is able to take care of himself should do so and be made to do so and the government should not pauperize its citizens by giving to those who are able to provide for themselves.

The representatives of the American Legion expressed their opposition to the insurance plan of Dr. Shoulders. They stated that this plan had been

fully presented and discussed by them and that rather than discuss concrete plans it would be better to try to arrive at some agreement on policies.

After discussion by Mr. Fesler, Dr. Goldwater, Mr. Cliff, Mr. Miller and Mr. Hayes, Dr. Cary suggested the formation of a smaller committee to formulate some policy that we could all agree on for future action and which would act as a liaison committee with the Veterans' Administration. This was agreed upon and the following committee was appointed:

Committee of the American Legion: Mr. E. V. Cliff, Mr. E. A. Hayes, Dr. William Leffingwell (represented by Dr. Shapiro), Captain W. B. Miller.

Committee of the American Medical Association (appointed by the representatives of the Board of Trustees present): Drs. E. H. Cary, C. B. Wright, William C. Woodward, Holman Taylor.

Committee of the American Hospital Association: Mr. Paul Fesler, Dr. N. W. Faxon, Dr. Hugh Scott, Dr. F. A. Washburn, Dr. N. R. Kneiff (Catholic Hospital Association).

The general meeting was then adjourned and the smaller committee went into session and elected Mr. Paul H. Fesler Chairman. After a great deal of discussion, this committee reached a tentative agreement subject to endorsement by the various organizations.

This tentative agreement is the final result of the various meetings held. The principles laid down can be used as the foundation for future co-operation. While it does not represent the principles of the Shoulders resolution as to insurance, it does give an opportunity to work out constructive legislation. Many of the medical profession, who are not committee members, feel very much pleased with results so far and express the opinion that we have accomplished more in this short time than could have been expected. Dr. Shoulders is entitled to a great deal of credit for having brought his resolution before the House of Delegates. It offered a distinctly constructive proposal that has served to make possible conferences and discussions of a most helpful nature and has centered attention of all groups concerned on the undesirable features of the method now in use under government control.

We, therefore, wish you would give this tentative agreement, which follows, your careful consideration:

(1) There are no available statistics on which a comparison could be made between the cost of care in federal and nonfederal hospitals, for the same class of cases. It was agreed that the Chairman, Mr. Fesler, should obtain a study of treatment costs in federal and nonfederal hospitals, comparing the cost of care of like diseases.

(2) At the request of the Legion, a definition of an emergency was agreed on, which was as follows: "An emergency case, in the opinion of this committee, is a case where there is need for medical or hospital service which cannot be furnished by veterans' hospitals promptly enough to prevent avoidable danger to the health and life of the patient or to prevent a lasting disabling condition." This is more of a legal than a medical definition; it covers a great deal.

(3) It was recommended that the hospital program of the American Legion having to do with nervous and mental and tuberculosis cases and service-connected cases be approved, including the extension of hospitals for the care of these cases where necessary, it being definitely understood, however, that the beds provided by the extension of hospitals for nervous and mental and tuberculous cases will not be used for the care of general

medical and surgical non-service-connected cases. It was further agreed that there were non-service-connected general medical and surgical conditions of a chronic nature that the nonfederal hospital would not care to accept, and conversely there would be service-connected cases which might be more satisfactorily cared for in nonfederal hospitals.

(4) On the motion of Dr. Cary, the Chairman was authorized to appoint a committee to draw up an amendment to the existing law to permit veterans to be taken care of in home hospitals by their own doctors at government expense. On this committee are Dr. Woodward, Mr. Cliff and Dr. Faxon.

(5) It was recommended that liaison committees be organized in every state, consisting of representatives of the State Hospital Association, the State Medical Association and the State Legion and the local regional representatives of the Veterans' Administration, looking toward better co-operation among these groups.

(6) Mr. Hayes, representing the American Legion, urged the continued advice and coöperation of the members of the medical and hospital associations as the "best and most skillful care available was necessary in the treatment of disabled veterans".

The committee then adjourned, agreeing to meet at the call of the Chairman. It was further agreed that a report should be made which could be sent to all the groups at the conference.

While in Washington, at the request of Representative McClintic, members of our committee presented arguments for the care of veterans with acute medical and surgical conditions in local hospitals by local physicians.

DISCUSSION

An attempt to evaluate the concrete results of our year's work is difficult. We believe, however, that we have accomplished something. The result of educational work of all kinds is often intangible but, if properly done, in the long run is often more fruitful than concrete results without a secure foundation. As this work has progressed throughout the country, numerous plans have been suggested. A number of Legion Posts have adopted the Shoulders insurance plan, a number have adopted the emergency care plan, and various other plans have been suggested or adopted throughout the country. When one realizes that there are approximately 10,000 Legion Posts, the impossibility of reaching a majority of them before the Legion convention in September with our machinery is quite apparent. Regardless of concrete plans, however, we have been able to bring to the attention of an interested, and the most influential, group in the country the benefits of individualistic practice and the danger of any type of federal or state medicine for the general medical and surgical care of the veterans and the general population, and particularly the danger to the veteran suffering from acute medical or surgical conditions. This also holds true in the early diagnosis of cancer, tuberculosis, diabetes, nephritis and other diseases.

We believe that the work we have started should continue. On every side the medical profession is being confronted with health activities which, started with the highest motives in most instances, have through publicity and propaganda diverted the attention of the public from the practicing physician as the most essential factor in any public or private health program. The most essential factor in the proper care of the veteran is that he be taken care of by a doctor who is a well in-

formed, interested practitioner of medicine in the local community, who is unfettered by official "red tape".

SUMMARY

First, our committee has established, through the Board of Trustees, a standing committee coöperating with the American Legion, the American Hospital Association and the Veterans' Administration to work out some change in policy in regard to the care of veterans.

Second, we have stimulated the medical legionnaires and the profession throughout the country to interest the local Legion Posts in the dangers of federalized medicine from the standpoint of the veteran and the country.

Third, members of our committee have discussed veterans' legislation before the Secretaries' Conference and before the Annual Congress on Medical Education, Medical Licensure, and Hospitals.

Fourth, we have written and stimulated editorials and articles in the state medical journals on veterans' legislation. In this work Dr. Shoulders has been particularly active.

Fifth, every member of the committee has talked before groups of medical men and legionnaires, not only in their own but also in other states.

Sixth, by stimulating the establishment of a permanent committee in all states, representing the American Legion, American Hospital Association, Veterans' Administration and the American Medical Association, the machinery is gradually being built up for better mutual understanding and to prepare the way for any change in policy which may come in the future.

Committee on Legislative Activities

C. B. Wright, Chairman
E. H. Cary
J. H. J. Upham
Thomas S. Cullen
D. Chester Brown

Auxiliary Committee on Veterans' Legislation

H. H. Shoulders
Angus McLean
F. S. Crockett
E. A. Meyerding
Otho A. Fiedler
Holman Taylor

II. HEARING ON RURAL INFANCY AND MATERNITY BILL

An additional matter of interest was the hearing on the Maternal and Infancy Bill before the Committee on Commerce in the United States Senate on February 4, 1932. Dr. Holman Taylor, of Texas; Dr. H. M. Johnson (sent by the Minnesota State Medical Association); Dr. George W. Kosmak, of New York; Dr. W. D. Chapman, of Illinois; Dr. W. C. Woodward and Dr. C. B. Wright spoke against this bill.

We would urge the members of the House of Delegates to write to their Senators for the report of the hearing on S. F. 572. Apparently, there is a great need for information regarding this proposed legislation on the part of many members of our association, and we feel the members of the House of Delegates should be informed on this subject. There is a strong sentimental appeal in all legislation which purports to be for the benefit of mothers and children.

This bill differed from the old Sheppard-Towner Bill in that it applied only to the rural population and to towns under 50,000. The reason for this limitation, of course, was not apparently well founded because statistical analyses, as brought

out at the hearing, fairly uniformly showed that maternal and infancy death rates are less in rural than in urban districts.

It was also shown that as far as could be determined the operation of the Sheppard-Towner Act had no influence on maternity and infancy death rates.

This bill was referred out from the Committee on Commerce of the Senate with the rural aspects of the bill stricken out. There was also a minority report against this bill signed by Senators George H. Moses, Edwin S. Broussard, Hubert D. Stephens, Harry B. Hayes, Josiah W. Bailey, Marcus A. Coolidge and Hiram Bingham.

We would also recommend your reading, if you have not done so, Senator Bingham's careful analysis of how the money was actually spent which was appropriated under the Sheppard-Towner Act. We would also like to call attention to the careful analysis of the subject "Federal Subsidies for Rural Maternal and Infant Hygiene", by Dr. Woodward. This can be obtained from the office of the American Medical Association. It might be worth while for the officers of the American Medical Association to arrange a conference between the Committee on Legislative Activities of the American Medical Association and representatives of the organization of state health officers to find out why the health officers so persistently lobby for federal instead of state control of health activities.

C. B. Wright, Chairman
E. H. Cary
J. H. J. Upham
Thomas S. Cullen
D. Chester Brown

Committee on Legislative Activities

III. After careful consideration the committee agrees to the purpose and purport of the resolutions, introduced by Dr. Shoulders and referred to the Reference Committee on Legislation and Public Relations and then to the Committee on Legislative Activities and to its Auxiliary Committee on Veterans' Legislation, and recommends that the House of Delegates refer these resolutions back to the Committee on Legislative Activities without instructions.

C. B. Wright, Chairman
D. Chester Brown
E. H. Cary
H. H. Shoulders
E. A. Meyerding
F. S. Crockett
Holman Taylor
Thomas S. Cullen
William C. Woodward, Ex-Officio

On motion, duly seconded and carried, the report was adopted as a whole.

Resolution on the Appointment of a Committee to Study Birth Control

Dr. J. D. Brook, Michigan, moved the adoption of resolutions providing for the appointment by the President of a suitable Committee on the Study of Birth Control.

The motion was seconded by Dr. Carl F. Moll, Michigan, and discussed by Dr. Charles E. Mongan, Massachusetts, and Dr. J. W. Van Derslice, Illinois.

REPORT OF REFERENCE COMMITTEE ON EXECUTIVE SESSION

Dr. Samuel P. Mengel, Pennsylvania, for the Reference Committee on Executive Session, presented the following report:

This is a controversial subject and the committee believes that it would not be advisable at this time to inject this subject before the profession. The committee therefore disapproves the adoption of the resolutions.

J. W. Van Derslice, Chairman
S. P. Mengel
Arthur W. Booth
J. F. D. Cook

Dr. J. W. Van Derslice, Illinois, moved, as a substitute for Dr. Brook's motion, that the recommendation of the Reference Committee on Executive Session be adopted. The motion was seconded by Dr. John F. Hagerty, New Jersey, and carried, after discussion by Dr. Holman Taylor, Texas.

Report of Reference Committee on Reports of Board of Trustees and Secretary

Dr. W. F. Braasch, Chairman, presented the report of the Reference Committee dealing with the Report of the Board of Trustees.

Dr. J. H. J. Upham, a Trustee, read a statement from the Board of Trustees in reply to questions raised in the report of the Reference Committee.

The subjects in the report of the Reference Committee were discussed by Dr. W. F. Braasch, Minnesota; Dr. Junius B. Harris, California; Dr. J. W. Van Derslice, Illinois; Dr. Olin West, Secretary; Dr. C. B. Wright, Minnesota; Dr. William Duffield, California; Dr. Wendell C. Phillips, a Past President; Dr. H. H. Shoulders, Tennessee; Dr. B. F. Bailey, Nebraska; Dr. Isaac A. Abt, Section on Pediatrics; Dr. Holman Taylor, Texas; Dr. G. Henry Mundt, Illinois; Dr. J. W. Burns, Texas; Dr. H. M. Johnson, Minnesota, and Dr. A. E. Bulson, Indiana.

On motions duly seconded and carried, the following report of the Reference Committee on Reports of Board of Trustees and Secretary was adopted section by section and as a whole:

Your committee notes with commendation the evidence of progress made during the past year as shown by the reports submitted to the Board of Trustees by the various bureaus and committees. Unless the members of the House of Delegates have taken the time to review carefully each item of the report, they cannot conceive of the volume and variety of progressive work carried on under their supervision. It is a great pity that such information cannot be disseminated among the entire membership of the Association. If it were possible, every Fellow would appreciate how much is being accomplished by his financial support, which amounts individually to so modest a sum. The action taken by the trustees in maintaining the present Fellowship dues receives our whole-hearted approval. This is no time to diminish the Association activities, which a reduction in income would necessitate. Rather than diminish our activities, we should increase them. The ever increasing problems confronting organized medicine as the result of the present social and economic upheaval demand vigorous consideration and early solution if possible, at our hands.

COUNCIL ON PHARMACY AND CHEMISTRY

We note that the work of the Council on Pharmacy and Chemistry has been going on apace. No activity sponsored by the Association has done

more to raise the standard of medicine than the extraordinary work carried on by the Council and its subsidiary, the Chemical Laboratory. It has been a most important factor in establishing the high standard of therapy set by our association. We would especially commend THE JOURNAL for its action in giving full publicity to the investigations of the Council. The Council has done distinct service through its publication of New and Nonofficial Remedies, the annual printing of the Council Reports, of special reports, of Useful Drugs and the Handbook for Interns, all of which are of the greatest practical importance to the profession. We would also commend the study recently carried on by the Council in the field of intravenous therapy. The wiles of advertisers have led some of the profession to believe that intravenous therapy offers special merits over other forms of medication. The Council deserves great credit for demonstrating that many of these claims were inspired by commercialism, and that intravenous therapy is indicated only in special conditions. The Council has shown quite conclusively that, for routine medication, the oral or rectal route is safer and to be preferred.

The importance of the Committee on Foods, which has recently been given an independent status, is becoming quite evident. While it may be too early to pass judgment as to the final value of its work, nevertheless it would seem that what it has already accomplished is of a distinctly constructive nature. If it can influence and correct any untruthful statements made in the advertising of foods, it will be of great value to the public. If it can be of help in giving the profession a better idea of the value of certain nutritional products, it will also be worth while.

BUREAU OF HEALTH AND PUBLIC INSTRUCTION

The important work done by the Bureau of Health and Public Instruction merits commendation. Efforts to stimulate the interest of the laity in medical problems should be furthered in every legitimate way. The influence of the radio seems to be increasing apace. We who are forced to listen to the so-called health messages given out by charlatan advertisers naturally resent their blatant audacity. We urge the continuance of the efforts that have been made to stop this obnoxious publicity.

Your committee commends the efforts made to stimulate interest in periodic health examinations. In this connection it should be emphasized that the examination given must be thorough and include all the modern clinical methods. Without complete physical and laboratory data, periodic health examination will fail of future approval.

We commend the close coöperation established with lay organizations, such as the Parents and Teachers Congress. Every effort should be made to have the medical profession take the lead in all matters pertaining to health.

BUREAU OF LEGAL MEDICINE AND LEGISLATION

The work of the Bureau of Legal Medicine and Legislation has been of value to the medical profession in keeping the Association and its members informed in regard to the ever increasing legislative problems, both state and national, which affect the practice of medicine. The staff of this bureau has been of great aid in the past year in giving freely of legal advice and in helping to solve the various legislative problems that have arisen.

INCOME AND EXPENDITURE

Although many rightful demands are undoubtedly made on the Board of Trustees for increased funds by the various bureaus and committees, nevertheless your committee believes that some of the activities which the Association is now carrying on are inadequately financed. We refer particularly to the work carried on by the Committee on Legislation and by the Bureau of Medical Economics.

BUREAU OF MEDICAL ECONOMICS

The significance of the work carried on by the Bureau of Medical Economics in its bearing on the future of organized medicine cannot be over estimated. Taking advantage of its accumulating data, and guided by the experience of the medical profession in other countries, the solution of economic problems in the future should be made more easy. The need of such a movement has long been widely recognized and sporadic attempts to cope with the various problems have been made by individual state societies during the past decade. It may be remembered that the demand for the institution of this all important bureau was made in the House of Delegates last year by the delegates from California and passed with much enthusiasm. The pity is that such a movement was not started years ago, so that the data which might have been accumulated could now be available when sorely needed. Now that the machinery has been tardily erected for this all important work, it would seem that everything possible should be done to quicken its aims. Its director undoubtedly deserves credit for what he has already accomplished and for the wide scope outlined for the future activities of his department. It appears to your committee, however, that the need for immediate results in obtaining all possible data, the desirability of making them available to every state association, and the furtherance of their adoption, is imperative.

While the wide range of topics for investigation noted in his report is to be commended, it is evident that if all the subjects were properly investigated, years of work with the present personnel would be necessary in order to arrive at any conclusions. In the solution of the many problems involved, not alone is it essential to have an accumulation of facts bearing on the problems, but principles for their solution must be recommended. The question might well be raised whether it would not be advisable to single out a few of the most urgent problems and pursue them to an immediate constructive conclusion. The difficulties of solving the problems peculiar to various districts of the country again call our attention to the desirability of regional supervision.

In reviewing the financial budget of the Board of Trustees, we note that the sum made available for carrying on the operation of this bureau was inadequate. Your committee recommends that this amount should be greatly increased and that the scope and the personnel of this department be augmented.

HOUSE OF DELEGATES

Your committee desires to call attention to the fact that resolutions and instructions adopted by the House of Delegates are occasionally overlooked by the Board of Trustees or other officers of the Association and fail to receive any executive action. Doubtless, in some cases, logic and common sense would explain such action. To be specific, we refer to a recommendation made by the Presi-

dent of the Association and adopted last year by the Reference Committee on Reports of Officers and approved by the House of Delegates, which endorsed the arrangement of scientific meetings in various sections of the country by association of officers. A word of explanation in regard to its disposition might have been included in the report of the Trustees to the House of Delegates.

In conclusion your committee would raise the question whether the members of the House of Delegates representing the membership of our Association are given sufficient opportunity to discharge their duties as such representatives and to take part in the activities of the Association. It is open to question whether they can become familiar with its policies in the short annual sessions now held. In raising the question, we do not reflect on the ability and judgment of the Board of Trustees and the officers who direct the affairs of the Association. It is possible, however, that a more permanent influence and contact with the activities by members of the House of Delegates might be of mutual benefit. This could be attained either by meeting several days prior to the week of the annual session, or by semi-annual meetings of the House of Delegates instead of annual as at present. We realize that this subject has been brought up before and has met with adverse action. It is only after discussion with a number of the delegates that the desirability of further co-operation on the part of the House of Delegates is brought up for further consideration.

Your committee presents these suggestions for your consideration. It is recommended that the Delegates record their desires definitely for further guidance.

On request, the Secretary explained the methods used in trying to build up Fellowship.

Dr. William H. Mayer, presented the following statement:

Report of Committee on Medicinal Alcohol

A request was made that this committee report to the House of Delegates the present status of the legislation which has been the subject of so much controversial discussion before this group for some years. The committee felt some years ago that it was best that this subject be discussed in executive session because of the tenderness of the situation.

When the Lambert-Yellowley suit was before the Supreme Court, the House of Delegates felt that, in the event that section 7 of the Volstead Act was declared unconstitutional, the prescription of alcohol should have some adequate regulation. A committee consisting of Dr. Southgate Leigh, Dr. Paul White, Dr. Tom B. Throckmorton and myself was created to draft such regulations in the event of the success of this suit. The committee had referred to it from time to time certain other resolutions, one of which was that certain bills should be prepared against the continuance of the irreligion of the United States government limiting the practice of medicine and the principle involved in section 7 of the Volstead Act.

This committee was also required to draft, and make a part of this bill, certain reasonable regulations. We studied the proposition. We understood the practical side of it; we appealed to the various governmental officers for their suggestions, and we felt that our time would be wasted were we to present any such legislation under the conditions which then existed.

We appeared before the Wickersham Committee, feeling that this subject was germane. Dr. Wood-

ward and myself represented the American Medical Association, and I think that I may say with pardonable pride that, of all the recommendations of the Wickersham Commission, one unanimous report was in complete support of the principle outlined by our association.

These bills were eventually drafted after the Wickersham Commission recommended that the irrelatation contained in the limitation from 9 to 10 days be removed from the Volstead Act. These bills were prepared and introduced at the present session of Congress. There were similar bills in the House, one presented by Senator Copeland of New York and the second by Representative James Beck of Pennsylvania. Hearings were held on these bills. Dr. Woodward appeared before the House hearings, at which time Colonel Woodcock and Commissioner Doran felt that we had placed in those bills no statement concerning the amount which might be prescribed at any one time. You can readily see our difficulty. Were we to have made this amount a large quantity of alcohol, our recommendation would have been the subject of considerable criticism; secondly, had we put a small quantity in, say four ounces of prescription, immediately we would have been accused of trying to increase the service charge to our patients by repeated prescriptions. Being between Scylla and Charybdis, we simply stated that we felt that that should be subject to adequate regulation. Commissioner Doran and Colonel Woodcock asked that the bill be so amended that it would contain definite legal restrictions to the point that it would place in the hands of the Secretary of the Treasury and the Attorney-General, now jointly controlling the medicinal alcohol situation, the power to put down those regulations governing the prescription of whisky.

Now, gentlemen, I want to say that I don't know what the medical association would do without Dr. Woodward at Washington. His contacts and his associations, the high plane on which you are represented, is something that you could not buy elsewhere. His commissionership of health in the District of Columbia for over twenty years has given him an entrée and a standing there which makes him respected by all people, and you gentlemen derive reflected credit from his career. So our motives were always understood in these things; but we have first fought for a principle, that principle which reserves the right to you to prescribe in the legitimate practice of medicine anything that God has created or may create, for the benefit of your patient. Aside from that I think that we have also represented your point of view in that we have insisted that regulatory measures always be in force so that the intent and purpose of the laws of these United States might be safeguarded.

We have no other statement to make concerning this. I don't care whether they put all the whisky six miles under the ocean so far as I am concerned, but I do say if this principle were extended it might be just as easy for Congress to say that you must consult with a recognized chiropractor before you do an appendectomy.

I have made some thirty-six trips to Washington, back and forth, during the last six years. I may say that the representatives of the departments of the government are most cordial gentlemen. Our bills at the present time have been postponed in one committee, mainly because one of our state association groups did not play ball. They simply went to one legislator and he had letters from the doctors that this was not necessary, so why bother with it, and for that reason his adverse vote

resulted in the postponement of this thing at least temporarily. It may not be carried out this session, but the favorable report of the committee I think will eventually be gotten and that this thing will eventually become a law.

Until the Wickersham Commission made its report, the President had really no obligation not to veto this bill. At the present time I think he has. You know he is on record as saying that modification means nullification, so therefore if he sticks to that principle he must veto this legislation if it is passed by both Houses of Congress.

What I would like to have from you gentlemen is your expression of confidence in your Board of Trustees and its committee appointed for this purpose. Six years of work in this has been a distinct pleasure. Gentlemen, that is the situation. I hope you understand it and that this House will either express its confidence in its committee and the Board of Trustees in this matter, or see fit to advise us as to a course which will be acceptable to you.

Some organizations throughout the country have gone in the wrong direction and have taken unto themselves to dictate policies which have become confused with ours. In one particular case an estimable gentleman stepped into the committee and gave, I think, the most remarkable lecture on the medicinal values of beer that I have ever heard, so much so that I was convinced when he got through that I thought it was wonderful, and yet I recognized that the people there did not understand, that it was clouding the issue on a principle and helped to defeat our purposes at the time. For that reason I wish your committee might have your complete confidence in this matter so that we might go forward in the future.

Dr. Samuel J. Kopetzky, New York, moved that the report be adopted and that it is the sense of the House that it express its thanks, its appreciation, and its confidence in the committee which has just reported. The motion was seconded by Dr. Carl F. Moll, Michigan, and carried after discussion by Dr. Southgate Leigh, Virginia.

Report of Reference Committee on Legislation and Public Relations

Dr. Grant C. Madill, Chairman, presented the following report:

1. Your committee has considered the statement presented by Dr. Holman Taylor, objecting to the reduction of officers in the Medical and Dental Corps of the Army, and approves of the recommendations contained therein.

2. Your committee also approves of the resolutions introduced by Dr. Burt R. Shurly, relative to increasing the burden of taxation on the medical profession.

Grant C. Madill, Chairman.
J. F. Hagerty.
Southgate Leigh.
C. J. Whalen.
A. A. Ross.

On motion of Dr. Madill, seconded by Dr. Alexius McGlannan, Maryland, and carried, the report of the Reference Committee on Legislation and Public Relations was adopted as a whole.

Report of Reference Committee on Amendments to Constitution and By-Laws

Dr. N. B. Van Etten, Chairman, read the following report:

Considering the request of the Secretary for a decision of the House of Delegates on the ques-

tion of either amending the By-Laws or adding a standing rule, incorporating the sense of the resolution adopted at the Philadelphia session in 1931, which reads as follows:

Resolved, That it is the sense of the House of Delegates of the American Medical Association that these provisions of the Constitution and By-Laws of the American Medical Association dealing with the credentials of constituent state associations shall be so construed by the Reference Committee on Credentials that when a constituent state association reports that one of its delegates and his respective alternate are both unable to attend a specified annual session of the American Medical Association in which one of them could have functioned as a delegate, under such conditions (provided the constituted body or council of such a constituent state association is authorized by its state constitution and by-laws to act for the state association and its house of delegates), when such authorized state body has duly elected others of its members to fill the vacancies caused by the absence of both a delegate and his respective alternate, such a duly elected substitute delegate, or his duly elected substitute alternate who presents proper credentials shall be eligible to regular membership in the House of Delegates of the American Medical Association for such a specified annual session.

Your Reference Committee on Amendments to Constitution and By-Laws believe that a standing rule may wisely be added to the section on rules for the guidance of the Committee on Credentials which shall be 5 and shall read as follows:

When a constituent state association reports that one of its elected delegates and his elected alternate are both unable to attend a specified annual session of the American Medical Association, the constituted authority of said constituent state association may fill the vacancies caused by the absence of both an elected delegate and his elected alternate, and such a substitute delegate or his substitute alternate who presents proper credentials signed by the President and Secretary of said constituent state association shall be eligible to regular membership in the House of Delegates of the American Medical Association in such a specified session.

N. B. Van Etten, Chairman.
Walter F. Donaldson.
John H. O'Shea.
H. M. Johnson.

It was moved by Dr. Van Etten, seconded by Dr. Frederic E. Sondern, New York, and carried after discussion by Dr. Holman Taylor, Texas, that the report be adopted.

Dr. Van Etten moved that the Standing Rule be amended by the addition of this rule as number 5 under the heading Rules for the Guidance of the Committee on Credentials. The motion was seconded by Dr. Grant C. Madill, New York, and carried.

REPORT OF JUDICIAL COUNCIL

Dr. George Edward Follansbee, Chairman, presented the following supplementary report of the Judicial Council, which was adopted on motion of Dr. Follansbee, seconded by Dr. G. Henry Mundt, Illinois, and carried:

The privilege of healing the sick as a profession

is a right granted only to those properly qualified and licensed by the state. It is a privilege belonging only to the medical profession. It is a sacrifice of professional dignity that this exclusive right of medicine is so often sold for individual gain or its possessor deprived of it against his will. In increasing numbers, physicians are disposing of their professional attainments to lay organizations under terms which permit a direct profit from the fees or salaries paid for their services to accrue to the lay bodies employing them. Such a procedure is absolutely destructive of that personal responsibility and relationship which is essential to the best interests of the patient.

Outstanding examples of this type of unearned gain are not difficult to find. There are insurance companies administering workmen's compensation benefits wherein the salaries or fees paid to the physician by the insurance company are so much below the legal fees on which the premium paid by the industry is based as to furnish a large direct profit to the insurance company. As mentioned in a former report of the Council, certain hospitals are forbidding their staffs of physicians to charge fees for their professional services to "house cases" but are themselves collecting such fees and absorbing them in the hospital income. Some universities, by employing full time hospital staffs and opening their doors to the general public, charging such fees for the professional care of the patients as to net the university no small profit, are in direct and unethical competition with the profession at large and their own graduates. They are making a direct profit by a practice of questionable legality, from the professional care. There are other examples which could be cited but those mentioned suffice.

The increasing number of such instances indicates either a thoughtlessness or a selfishness on the part of the participants that is disturbing to the Judicial Council and in its opinion warrants the Council in bringing the practice, with the disapproval, again to the attention of the House of Delegates and through it to the profession at large.

Public Relations

HEALTH LEGISLATION FOR VETERANS

(From the New York Medical Week, of May 28, 1932.)

Congress has followed no set plan but, under pressure of a powerful veterans' lobby, enacted legislation favoring former soldiers whose ailments arose in after-war times to the disadvantage of those whose disablement is directly of wartime origin. During 1925, for example, such beneficiaries having service-connected illnesses numbered 63,569, dropping to 26,799 in 1931 while those with non-service-connected illnesses increased from 13,243 in 1925 to 86,850 in 1931.

Although receiving compensation for initial "disability", no distinction is made as to a possible later cure, as to having a normal earning capacity or as to being otherwise financially independent. This periodic cash gift from the government continues during lifetime.

A larger percentage of former medical officers receive such compensation than other ex-officers although some of these medical beneficiaries are employed on a full-time basis in the Veterans' Bu-

rcau, its hospitals or other governmental capacities.

And now this aggressive lobby aims at widening such benefits and adding others, even though total appropriations for war veterans for 1932-1933 already exceeds the huge gross sum of \$928,000,000.

The Civil Service law has been set aside to place former soldiers in state and federal positions, even if incompetent, thus endangering governmental efficiency.

Although at least 160,000 vacant beds were available in civilian hospitals of the country during the year, the lobby demands the building of additional hospitals with a capacity of 100,000 beds for ex-soldiers' use, service-connected or otherwise. This added cost would be \$400,000,000.

Calling on all organizations to demand a Congressional investigation on the seriousness of the situation, the Academy urges the following recommendations at this time:

(1) That the hospitalization of veterans for non-service-connected disabilities be discontinued, not alone because it is wasteful but also because it is reprehensible class legislation and totally unfair to the rest of the population of the country.

(2) That as the hospital beds become vacant, the unneeded hospitals be transferred or sold to the states for conversion into public institutions for mental diseases, tuberculosis and other chronic conditions for which inadequate provisions have as yet been made, and that they be available to the general public as well as ex-soldiers.

(3) That an inquiry be made as to the adequacy of compensation granted to the widows and dependents of veterans who were killed or died in the war or who were killed or died as a direct result of the war.

(4) That adequate compensation be continued for those veterans who were in fact diseased or disabled as a result of war service.

(5) That no compensation be paid for partial disabilities to individuals who are not in need or whose earning capacity is materially unimpaired or who earn more than \$1,500 per annum.

(6) That expert medical advice rather than an arbitrary Congressional decree be allowed to decide whether medical conditions which developed after the war may have been caused or favored by military service and that the type of military service be considered in arriving at a decision in specific instances.

(7) That the operation of the Emergency Officers Retirement Act be studied and the Act revised to prevent existing abuses.

(8) That in the formulation of future plans for the medical care of ex-soldiers, Congress and the Bureau of Veterans' Affairs avail themselves more freely of the expert advice of national medical organizations.

(9) That all amendments to the federal Civil Service regulations which grant undue preference to ex-soldiers be rescinded because of the danger to the efficient conduct of the medical and public health services of the government.

Savings in federal expenditures resulting from the elimination of subsidies of all kinds to ex-soldiers who are *not* suffering from war disabilities would exceed \$450,000,000 a year.

ACTIVITIES OF A PUBLIC RELATIONS COMMITTEE

(From the Pennsylvania Medical Journal of May 1932, p. 571.)

The following editorial is from the Bulletin, Montgomery County Medical Society, and pertains to the activities of a public relations committee:

"The State Medical Society seems to be headed in the right direction in its campaign of educating the public by means of its Public Relations Committee. We have always contended that the proper method of combating the cultists and practices and pathies was not in pulling the weeds after they had grown but in exterminating the roots and particularly in furnishing soil upon which they will not grow. The cults and quacks exist only because the public mind is not educated to the fact that medical education means more than quick shortcuts through the back door of some school issuing diplomas under various guises.

The old moth-eaten idea of hiding our light under a bushel will never get us anywhere while the opposition runs about and breathes fresh oxygen all the time. There can be no good valid reason why the accomplishments of the medical profession today should not be given to the public in an ethical way. How else will the layman ever know what is going on? Can you blame him for following the light that presumably shines brightest while real light is encased in the bushel covered with a heavy blanket of so-called ethical restraint? The layman is not to blame for taking up with this fad or that fad when he has not been sufficiently educated in medical matters to figure things out for himself. He goes to an osteopath because he hears of his prowess (?) through intensive publicity. He shuns the medical men because he hears only of their errors—these latter seem to be about all that the press 'plays up'. Again, you can't blame the press in a way, because primarily they look after their advertisers, that's business. However, there is another side and that is duty. It is the duty of the press to give the public the truth regardless of business entanglements.

How is the daily press going to give this information if it is not given to them in the proper manner? Shunned, it gives what it likes; properly advised it would give what the public mind should have and I do not believe any editor would refuse to disseminate truths of value in raising the standard of living.

The chief aim of the Public Relations Committee of the State Society for 1932 in Secretary Donaldson's words, 'will be to suggest plans by which the component county societies may convince the people of each county that the local medical profession is progressive, unselfish, capable of and willing to assume leadership in all community activities pertaining to sickness prevention'.

Dr. Donaldson also states: 'A county medical society with an official publication possesses an ideal means of acquainting the newspaper editors, the judges, the clergymen, the school directors and school teachers, and the hospital managers and social leaders of the county with the purposes and endeavors of the medical profession: to wit, to extend medical knowledge and advance medical science so that the profession shall become more useful to the public in the prevention and management of disease, and in prolonging and adding to the comfort of life.'

To our way of thinking a properly working public relations committee will do more good in pro-

moting a better understanding with the laity than all the prosecutions of cultists that were ever advised. Show the public what is going on, then let them decide for themselves."

ACTION BY STATE HOSPITAL ASSOCIATION

(From N. Y. Medical Week, of June 25, 1932, recording action that should be duplicated in each state.)

The Hospital Association of New York State at its eighth annual conference, held in New York City, May 5-7, adopted the following resolution:

Whereas the Hospital Association of New York State, after careful consideration of the problem of hospitalization of war veterans arising out of the numerous laws concerning veterans which have been enacted since the World War, more particularly paragraph 10 of Section 202 of the World War Veterans Act of 1924, approved June 7, 1924, as amended by acts approved March 4, 1925, July 2, 1926, and July 3, 1930, has become convinced of the unfair burden which this type of legislation imposes upon the community, and,

Whereas \$1,000,000,000 (27%) of the present budget of the federal government is being expended yearly upon ex-soldiers, a major portion of which is utilized for the care and hospitalization of veterans suffering with diseases which are non-service related, and,

Whereas the elimination of the legislation above referred to and the limitation of the medical care of veterans to those who actually incurred their disabilities during the war and as a result of injuries sustained during the war, will avoid further accumulation of an unfair financial burden which is already reaching alarming proportions, and which is peculiar only in the United States, not being present in any other country engaged in the recent war, and,

Whereas the institutions at present being utilized for hospitalization of war veterans are sorely needed for conversion into public institutions for mental affections, tuberculosis, and other chronic diseases for which there is inadequate provision, and,

Whereas there is existing at present the possibility, as a result of powerful professional lobbies, maintained in Washington by the American Legion and Veterans of Foreign Wars, of further expansion of privileges and benefits for veterans, including \$50,000,000 for additional hospitals to accommodate more men with non-service-connected disabilities, pensions for widows and orphans of 4,000,000 ex-soldiers who died of illness incurred in civilian life and unrelated to the war, regardless of the financial conditions in the lives of ex-soldiers; and also a demand of the American Legion for expansion of free medical service to veterans with non-service-connected illness so as to include privileges of free ambulatory treatment for 4,000,000 ex-soldiers for illness of any kind during the remainder of their lives, without regard to financial status or manner in which the illness was acquired, therefore.

Be It Resolved that the Hospital Association of New York State appears on record as opposed to continuance of the present policy with regard to the hospitalization of war veterans on the prin-

ciple that it will result disastrously to the nation, and

Be It Further Resolved that the Hospital Association of New York State in collaboration with the American Hospital Association as well as other public health agencies acutely aware of the improprieties and flaws of the present system, urge upon the legislators representing New York State the repeal of all laws which grant hospital and other benefits to ex-soldiers for illness incurred in civilian life and unrelated to war service, and

Be It Further Resolved that as in government hospitals beds become vacant, unneeded hospitals be sold or transferred to states or municipalities for conversion into public institutions for mental diseases, tuberculosis, and other chronic conditions for which hospital provision is deficient, and

Be It Further Resolved that all laws which provide compensation, hospital, and other benefits to veterans with war connected disabilities be reviewed and revised by competent medical authorities in such manner as to do justice to every deserving veteran, and

Be It Further Resolved that all legislative proposals be condemned which are designed to provide additional hospital facilities and free ambulatory medical service to ex-soldiers for disabilities incurred in civilian life and which are unrelated to war service;

Be It Further Resolved that copy of this resolution be sent to each Congressman and Senator in New York State as well as to the public press in an effort to call attention to the importance of the issues listed above due to the present critical period.

AMERICAN ACADEMY OF PHYSICAL THERAPY

The American Academy of Physical Therapy will hold its Annual Meeting at the Hotel Walton, in Philadelphia, on October 12, 13 and 14, 1932. Besides the program of scientific papers, clinics will be held at the various hospitals. There will be a manufacturers' exhibit.

Arthur H. Ring, M.D.,
Secretary

MEETING OF THE BONE AND RADIOLOGICAL CONFERENCE

The Bone Demonstration this year will be held the week of September 19 to 24, in the Engineering Hall of the Johns Hopkins University at Homewood, on Charles Street, at 34th, under the auspices of the Surgical Pathological Laboratory of the Johns Hopkins Hospital. Room accommodations at special rates can be secured at the Lord Baltimore Hotel, meeting headquarters. For a limited number desiring rooms without bath, accommodations can be secured on the university campus. Lunch will be served to all on the campus at 50 cents. Any radiologist, oral surgeon, orthopedic surgeon, or other member of the profession interested in bone lesions may be invited by you to attend.

Program—Monday, September 19, for Oral Surgeons and those Interested in Jaw, Teeth, and Oral Cavity; Tuesday, September 20, Conference on Special Subjects: Jaw, Giant Cell Tumor, and Ewing's Sarcoma; Wednesday, Thursday and Friday, September 21, 22, and 23, Main Bone Demonstration.

Any doctor may attend all demonstrations.

County Society Reports

Clinical Society of North Hudson Hospital

Pellegrino D'Acerno, M.D., Secretary.

A special meeting of the Clinical Society was held July 26th, with Dr. Kerdasha acting as chairman.

Henceforth the regular meetings will be held the second Tuesday of each month.

Dr. Evans stated that there is a vast program to cover during the year, especially in regard to instructing the interns in the various branches of medicine. He presented a schedule of 72 lectures to be divided among 18 doctors, 4 lectures a year being assigned to each man.

Upon motion of Dr. Kuhlmann, Dr. D'Acerno was elected Secretary-Treasurer of the Clinical Society and Dr. N. Schulman, Associate Editor.

The first part of the meeting was devoted to reports of the several chairmen of the Standardization Committee; the second part, to presentation and discussion of important cases treated at the hospital.

Dr. Kerdasha stressed the point that every member should attend at least 75% of the meetings; anyone failing to comply with this rule should be automatically dropped from the staff. He will call on different men each month to preside over the meeting. In the future these meetings will be limited exclusively to the presentation and discussion of clinical cases.

Dr. Tannert presented a lengthy report regarding the monthly hospital work, autopsies and interesting deaths. He dwelled upon the record system, stressing the fact that every attendant should keep complete case records. It is essential that every patient's history be taken within 48 hours of admission and the diagnosis, as well as the progress notes, be dictated by a responsible visiting man or his associate. For surgical cases, there should be a pre-operative and post-operative diagnosis. The operations should be dictated as soon as they are completed, and signed by the operator. The discharge note should likewise be dictated and signed by the attendant with a view to approving the entire chart. Dr. Evans suggested that a summary chart should accompany the records.

Dr. D'Acerno, as Chairman of the Publication Committee, promised to put forth his best efforts in compiling a Bulletin worthy of this clinical society. He states that every paper should be neatly typewritten in double space. He will send abstracts to the New Jersey State Medical Journal.

The choice of Dr. N. Schulman as Associate Editor is a real asset to our committee. I expect, however, that every member of this society will help make this enterprise a success, not only morally, but financially by procuring ads that will help defray, in part, the not light expenses of the publication.

Dr. Conty, as Chairman of the Laboratory Committee, pledges his full cooperation and expects everyone to support the laboratory and x-ray department.

Dr. Evans quotes Dr. Edwards to the effect that the x-ray department has not been receiving more than 50% of the work that should be expected from the staff.

Dr. DeMerritt, as Chairman of the Material, calls attention to the inadequate condition of the clinic sterilizers, instruments, etc.

Dr. Tannert recommends the purchase of special cabinets for storing personal sets of instruments.

Dr. Schept proposes the early organization of a

Woman's Auxiliary, composed of the doctors' wives, with the purpose of raising funds for some of the items under discussion.

CASE PRESENTATIONS

Case 1. Acute parenchymatous nephritis—Dr. Schneider. W. M., aged 17, was admitted to the hospital on the evening of June 19, 1932, in a semicomatose condition. Present history: One week previous to his admission to the hospital, this patient was taken sick with an attack of grippe. He was treated at home by his family physician and until the day before his coming here his course was uneventful, when suddenly he had a severe chill, began to vomit and became semi-conscious. Past history: He had an attack of diphtheria 5 years ago and an appendectomy 2 years ago. Family history: Father died at the age of 56, cause unknown. Mother alive and well; 5 sisters and brothers alive and well. Personal history: This is essentially negative. The remainder of the history in reference to the various symptoms was essentially negative.

Physical examination: Temperature 103°, pulse 134, respiration 28. Examination of this boy revealed that he was in a very toxic condition. There was marked edema of the eyelids, face, hands and pharynx. Examination of chest revealed crepitant râles in both bases of the lungs. The remainder of the examination was negative.

Laboratory findings: Hb. 84, R. B. C. 4,100,000, W. B. C., 16,000. Urinalysis, sp. gr., 1012; 4% by volume albumin; numerous R. B. C. and W. B. C. with many granular and cellular casts. Blood chemistry: N. P. N. 50, creatinine 1.7, blood sugar 90.

Treatment: Immediately on admission the patient was placed in a hot pack and this was repeated several times within the first 24 hours. In addition the patient was given intravenous injections of 10 c.c. of 10% magnesium sulphate and this was repeated 3 times in the first 24 hours. Fluids were forced through hypodermoclysis, intravenous injections of 500 c.c. of 5% glucose, and catharsis was induced through high colonic enemas.

Course in hospital: During the first 24 hours the prognosis was very bad, the patient had 33 convulsions lasting from 15 minutes to one-half hour during this period. His temperature rose to 105° and his condition was poor until after the third day. From this time the patient's condition gradually improved, his convulsions decreased in severity and number, his temperature began to recede and the vomiting stopped. One week after admission, the urinalysis showed a marked diminution in the amount of albumin, number of R. B. C., and casts. His N. P. N. came back to normal and the creatinine was 1.3. The patient's blood pressure on admission was 16/90 and this too gradually receded to normal. When the patient was discharged on July 27, 1932, he had completely recovered from his illness except for a trace of albumin and 5 to 6 R. B. C. in his urine.

DISCUSSION OF CASE 1

Dr. Evans stated that the case presented is evidently one of acute diffuse nephritis. The history of a cold, or infectious disease, or burns, especially chemical, or metal poisoning, for instance bichloride of mercury, is lacking.

He emphasized the importance of blood chemistry when urinalysis is essentially negative.

As to treatment, he pointed out that young people get along fairly well by helping them with elimination. In cases complicated with intense toxemia, a venesection, followed by saline infusion has proved of decided advantage.

The diet, as a rule, is based on low protein, salt free diet, restricting fluids in cases of pronounced edema or anasarca.

Dr. Shepard asked the speaker about the use of a salygran. He cited a case of acute glomerulonephritis following scarlet fever, in which he obtained a cure by the use of mallophen.

Dr. DeMerritt asked about the method of administration of $MgSO_4$.

Dr. Olpp pointed out that he obtains very good results by using NH_4Cl in gr. 5 capsules q. 3L as diuretic.

Dr. Schneider replied to the different questions and stated that he had used 10 c.c. doses of a 10% solution of $MgSO_4$ intravenously, in order to control the convulsions, by reducing the cerebral edema.

Case 2. Rupture of the ileum. *Dr. Tannert, J. H.*, aged 63, German, occupation, florist; admitted July 13, 1932, expired July 14, 1932. Chief complaints: Colicky pain in lower abdomen, nausea, constipation, swelling of abdomen. Family history: Irrelevant. Personal history: Has had left inguinal hernia 60 years, right inguinal hernia 15 years. Present illness: While working in garden on evening of July 12, 1932, he fell. About 9 p. m., same evening, he had sharp colicky pain in abdomen. He did not vomit but felt nauseated. He went to a doctor for an incarcerated hernia. Later was sent to hospital at 3 a. m.

Physical examination: Chest—Lungs: Occasional rale at base. Heart: Sounds weak, no murmur. Abdomen extremely rigid, distended and tender all over; rebound tenderness marked throughout. There is bilateral inguinal hernia, the left larger than right. Left soft and easily reducible. Right, soft and reducible with more difficulty, no pressure used.

Diagnosis: (1) Bilateral inguinal hernia—left reducible, right incarcerated; (2) acute abdomen. Laboratory: W. B. C. 15,840; urine essentially negative; polyp 88; lymph 12. Treatment: Admitted 3 a. m. Temperature 101.4° , pulse 100, R. 26. Intravenous 1000 c.c. 2.5% glucose, 4.20 a. m. Low Ss. enema siphoned back, no results. To operating room at 5 a. m. Preoperative diagnosis: Acute surgical abdomen, perforated viscus, acute appendicitis. Right pararectus incision. On opening peritoneum, yellowish green fluid flowed out. Loop of ileum isolated, which had a transverse tear 1 in. long, 12 to 14 in. from ileocecal junction. A loop of bowel about 14 in. showed evidence of having been incarcerated. Intestine covered with plastic exudate. Abdomen full of small intestinal content. Plastic chemical peritonitis. Closure of tear made in transverse axis, beginning with Lambert at once, 2 lines of pagenstecher across bowel, care being taken to close ends. One line of serous Lambert sutures covering other 2 lines. Tested for gas and fluid tightness; 3 cig. drains.

Postoperative course: July 13, 1932. Distention continued that day. Pulse weak, ranged between 106 and 140. Continuous intravenous started 3-4 c.c. per min.; temperature 101° ; clyses of saline and glucose given when intravenous stopped after 6 hours. July 14, 1932, pulse became weak, cyanosis developed, with edema of lungs. Distention continued. Temperature gradually rose to 104° Pulse? Expired July 14, 1932, at 12.30 p. m.

Autopsy: Condensed—Heart, chronic myocarditis, acute toxic myocarditis. Lungs: bronchopneumonia. Kidneys: Cloudy swelling; adenoma. G. I. Tract: Paralytic ileus; acute fibrinous peritonitis. Sutured gut: About 14 in. from ileocecal valve is repaired gut. Still gas and fluid tight and lumen is intact.

This patient died from an overwhelming chemi-

cal peritonitis. The autopsy shows sufficient pathology in the heart, lungs and kidneys to explain the rapid demise and inability to overcome his peritonitis.

DISCUSSION OF CASE 2

Dr. J. C. Farr asked if a flank drainage would not have been more helpful.

Dr. Reitnauer believes that taxis alone is not sufficient to cure an incarcerated hernia and should not have been attempted in this case.

Dr. W. Farr, while he does not deny that the taxis per se could not have caused rupture of the gut; on the other hand, his primary impression was that of acute abdomen, particularly acute appendicitis. A perforation of the small intestine, however, would have shown a more serious picture at the time of its occurrence.

Dr. Riemann stated that rupture of the gut may be caused by a blow without injury to the skin. He believes that in this case, an ileostomy would have been preferable.

Dr. Morrone asked if the case could have been one of pneumococcus peritonitis.

Dr. Kuhlmann feels that a perforation of the gut may occur spontaneously even many hours after an external injury and if the condition would warrant it, he would resort to an exteriorization of the affected gut. Furthermore, he believes that the injection, through the ileostomy wound, of 2 or 3 quarts of glucose solution would be of decided advantage.

Dr. Tannert, in reply, stated: (1) That a differential diagnosis in the case was difficult on account of the complicated clinical picture. (2) In a rupture of any viscus, there is a sudden shock; while in this, it was absent. (3) It would not have been easy to perform an ileostomy in the presence of edema of the gut and chemical peritonitis. (4) The performance of a high ileostomy would have meant further risk for the patient and under these circumstances he prefers the gastric lavage. (5) Hypodermoclysis was resorted to because the patient was not dehydrated and at any rate, it would have been contraindicated on account of the poor condition of the myocardium. (6) A resection in the presence of infection was objectionable. (7) The opening in the gut was neither an ulcer, nor the result of gangrene, but was a fresh traumatic rupture.

Case 3. Lobar pneumonia with cerebral symptoms. *Dr. Kerdasha.—J. M.*, a boy aged 23 months, was first seen by me at home 2 days prior to admission to ward. Child was seen immediately following an attack of convulsions. Parents gave history of sudden onset of high fever accompanied with vomiting and diarrhea and several hours later had an attack of convulsions. Past history and family history were irrelevant.

Physical examination: Child lying quietly in bed, face flushed, breathing rapidly. Resisted examination. Examination was negative except for redness of the tonsils, pillars and the uvula; temperature 104° , pulse 130, and respiration 48. Next day just before going to the hospital, child was again seen and examined. Patient appeared drowsy and at times in a delirium. Fever 105° Throat and tonsils inflamed. Abdomen was extremely distended with diffuse tenderness not localized over the appendix. No signs of cerebral irritation except a slight rigidity of the neck muscles and opisthotonos. Following admission to the hospital the child was given a high colonic and distention was relieved and the child appeared more comfortable. Urine was negative (blood W. B. C. 12,150, polys 66%, lymphs 33%, monose 1%). Consul-

tation with surgical department was asked for and Dr. McLean ruled out surgical abdomen.

July 5 and 6, condition remains the same, child resting fairly comfortably and taking its nourishment. The throat shows signs of clearing up. Urine was examined and found to be negative. July 7, examination revealed an area of dullness with light percussion at the angle of the left scapula extending to the axilla, also suppressed and feeble breath sounds. Left ear drum appeared reddened and slightly bulging. Dr. Conty called in consultation and confirmed the findings in the ear. Left ear was opened and a little serum obtained, but failed to discharge later. The fever remained 104°, pulse 150, respiration 50. Blood count W.B.C. 20,800, polys 70%, lymphs 29%. Condition became worse and symptoms of cerebral irritation became more marked, with rigidity of the neck and a suggested Kernig's sign. Dr. Conty was again asked to examine the ear and decided the condition was not due to the ears. I examined the child late that night. He was extremely irritable, with definite signs of cerebral irritation. Pupils were equal, markedly dilated and sluggish to light. Left chest revealed definite signs of dullness with bronchial breathing and crepitant râles. In the face of positive lung signs of lobar pneumonia, spinal puncture was deferred until x-rays of the chest were taken. X-ray report revealed sharply defined area of increased uniform density occupying the upper left lobe.

July 8 to 9, condition of child remains the same, chest signs becoming more definite while cerebral symptoms disappeared. The head no longer retracted in opisthotonos. Kernig's was not elicited. July 10, a sudden drop of temperature with the falling of pulse and respiration ensued. Child felt better and appeared comfortable except for a loose cough. Five days later, discharged, completely well and cured.

In conclusion: This case demonstrates how cerebral symptoms may complicate a picture of lobar pneumonia. Cerebral pneumonia may very closely simulate cerebrospinal meningitis due to irritation of the central nervous system. It is only through a study of the course of illness, of the symptoms of causative disease or by lumbar puncture that it eventually will be possible to clear up the diagnosis. Another important feature of this case is that positive signs in a case of concealed pneumonia do not appear for 4 or 5 days. Since the consolidation is over the periphery with the apex pointing toward the hilus and positive signs appear when communication is established with a bronchus.

Treatment of lobar pneumonia. There is probably no acute illness of children requiring less interference on the part of physicians than does uncomplicated lobar pneumonia. Disease is self-limited to 70% recovery with treatment and 20% in spite of treatment. Many children are subjected to unnecessary treatment and uncalled-for medication.

DISCUSSION OF Case 3.

Dr. Conty stated that in every case of lobar pneumonia, there is a concomitant acute serous otitis, and opening of the drum is a harmless procedure.

Dr. Zitani pointed out that in acute diseases, as pneumonia and typhoid fever, there often occurs serous meningitis, and in its presence he thinks that the spinal tap is indicated.

Dr. Riemann asked if any study as to the type of sputum had been done.

Dr. Shepard emphasized the importance of an early radiograph.

Dr. D'Acerno discussed the use of digitalis and of antipneumococcus stomosine in the treatment of lobar pneumonia in children, endorsing both as very advantageous.

Dr. DeVecchio described the method used by Dr. Bullova of the Harlem Hospital, New York City, in the treatment of childhood pneumonia, as follows: "I had occasion to participate in this work during January, February and March, 1931, and I would like to point out the difficulties we had to overcome and the procedures which had to be adopted for obtaining exact data. In each case, laryngeal smears were taken by direct laryngoscopy and cultured for type. Where the consolidation could be localized in the chest by physical signs or x-rays, the consolidated lung was punctured under aseptic precautions and the small amount of lung fluid withdrawn was cultured. The results were compared and when a definite type was found, serum was given in alternate cases. The therapeutic result in serum cases was not marked but the number of cases were too few to warrant conclusions. It was interesting to note that in some cases the lung puncture revealed a definite type pneumococcus where the laryngeal smear was either negative or showed the presence of other organisms.

At no time was digitalis medication used in any case. When the pulse and respiration were markedly increased and the patient showed signs of embarrassment to circulation and respiration, oxygen was administered by nasal catheter or atmosphere control chamber, depending on severity of symptoms. Whenever possible, all critical patients were placed in the chamber. Although the number of recoveries were relatively few, all cases showed uniformly a marked sudden drop in rates of respiration and pulse with relief of cyanosis and increased oxygen saturation of the blood. Where death occurred in these cases it was due to the virulence of type together with the susceptibility of the race under study. It would seem, therefore, that a rapid pulse in pneumonia is a compensatory mechanism. Any attempt to slow down the circulation by digitalis will further increase the embarrassment to a circulation which is trying to meet the oxygen requirements of the body tissues with a blood which is incompletely ventilated because of diminished lung parenchyma."

Dr. Kerdasha concluded that he uses digitalis only under special conditions. He favors the opening of the drums in most cases and, so far as oxygen therapy is concerned, his experience at Post-Graduate Hospital has shown that it is of very limited effectiveness.

Obituaries

MARTINE, Dr. Frank L., Newark physician, died August 15, 1932, at his home, 182 Roseville avenue, after a long illness.

Dr. Martine who was 53, was born in Newark. He was graduated from George Washington University in 1905 and began practice here in 1908.

Dr. Martine was a member of the Essex County Medical Society, the Academy of Medicine of Northern New Jersey, the New Jersey Pathological and Anatomical Society, and the Physicians' Club. He was attending surgeon at Newark Memorial Hospital and was associated with Presbyterian, Women's and Children's and Beth Israel Hospitals.

He leaves his wife; a son, Frank L. Martine, Jr.; a brother, Henry P. Martine, of San Francisco; and 2 sisters, Mrs. H. L. Roberts and Mrs. William A. Hugget, of East Orange.

through Dr. Fahrenbruch, Chief, or Dr. Curtis, Assistant Chief. The members of the society were asked to tell their patients that hospital services were not free but required payment.

Dr. Lippincott, President of the State Society, outlined the plan of Drs. Waters and Hagerty for the State Society to govern the specialties in the state.

Dr. W. W. Zwick, Chairman of Section on Nose and Throat, announced the following program: "Diagnosis and Treatment of Sinusitis", by Curtis C. Eves, of Philadelphia; "Conservative Treatment of Chronic Suppurative Otitis Media", by Oran R. Kline, of Camden; "Infantile Paralysis", by Emlen Stokes, of Moorestown.

The papers of Drs. Eves and Kline will be forwarded for publication in the Journal.

Dr. Stokes states that it has been proved that the virus of infantile paralysis is transmitted from the nasal mucous membrane by the olfactory nerve to the central nervous system. It is not transmitted through gastro-intestinal organs. Early symptoms are variable. Often the onset of the disease is with a gastro-intestinal upset, headache, stiffness of neck and back muscles. The lumbar puncture shows an increased cell count and globulin content. Parent serum and convalescent serum, either, protects monkeys but has not proved of benefit to human beings. It is recommended, however, as no harm results from its use. An abortive type is described with the onset like an acute infection for about 1 or 2 days that disappears with no further symptoms.

GLOUCESTER COUNTY

Henry B. Diverty, M.D., Reporter

Dr. John E. James, Professor of Obstetrics at Hahnemann Medical College, addressed members of the Gloucester County Medical Society September 15, at a meeting held at the Pitman Golf Club.

His lecture on "Some Obstetric Problems" was illustrated with motion pictures and proved of considerable interest and value.

The topic was discussed by Drs. J. Harris Underwood and E. E. Downs, of Woodbury, and Albert Davis, of Camden.

The annual social meeting of the society will be held in October.

Visitors included Drs. Davis and Kenney, of Camden; Lafferty, of Philadelphia; Dr. Emma Richards, of Camden, was a visiting delegate.

A supper was served following the meeting.

The members present were: President E. E. Downs, Ralph Hollinshed, J. H. Underwood, H. L. Sinexon, C. C. Sheets, H. Wilson Stout, C. A. Bowersox, William E. Crain, E. Z. Hillegas, E. W. Knight, Ralph Moore, Duncan Campbell, Horace M. Forder, E. R. Ristine, Oran Wood, Black, Frederick Wandell, C. Ulmer, H. B. Diverty, William Pedrick, Ashcraft, W. J. Burkett, Harry Nelson, B. A. Livengood, Fuller Sherman and William Chalfant.

PASSAIC COUNTY

Wayne W. Hall, M.D., Secretary

The regular meeting of the Passaic County Medical Society was held at the Health Center, Paterson, on September 15, at 9 p. m. with Dr.

Roemer presiding. There were 66 members present. The minutes of the May meeting were approved as read.

The following new applications were read to the Society and ordered sent to the Board of Censors for investigation: Drs. D. Anthony Wry, 234 Dayton Ave., Paterson; Taeke Bosche, Midland Park; Herman Levy, 219 Lexington Ave., Passaic; Arthur Minter Hambright, 266 Van Houten St., Paterson; Stephen G. Holster, 920 Madison Ave., Paterson; Frank A. Barlow, 91 Lafayette Ave., Paterson; Dennis Martin O'Brien, 162 Lexington Ave., Passaic; Dr. Bosch was informed that it would be necessary for him to join the Bergen County Medical Society, because of his residence there; and make application for a transfer to this Society, if he so desired.

The Scientific Program consisted of the presentation of a case and the reading of a paper.

Dr. David Polowe, of Paterson, presented the case of a thyroidectomy late in pregnancy. This was illustrated by very interesting lantern slides of the microscopic pathology of the specimen removed. Dr. Caldwell, Professor of Obstetrics, Columbia University Medical College, New York City, discussed this case.

Dr. Frederick W. Bancroft, Director of Surgery, Fifth Avenue Hospital, New York City, presented the paper on, "Postoperative Thrombosis, Thrombophlebitis, and Embolism". Dr. T. Dingman discussed the paper.

Dr. Wayne W. Hall, in coöperation with the Treasurer, Dr. Leslie Taber, suggested that the annual dues be reduced to \$12 per annum, at least for the coming year, as this amount was found to be sufficient to cover the actual expenses of the Society.

This suggestion was made into a motion and passed without opposition.

Dr. Roemer appointed the following to serve on the Nominating Committee: Drs. William Spickers, Chairman, William Dwyer, and W. MacMillan.

Adjournment took place at 11.30 p. m.

Obituaries

LEHLBACH, Charles Frederick, physician and surgeon who practiced in Newark many years, died September 3, at Fair Oaks Sanatorium.

Dr. Lehlbach, who was 65 years old, was born in Newark. He was graduated in 1890 from the College of Physicians and Surgeons in New York and began practice in Newark. He was associated with Dr. Henry L. Coit in establishment of the Essex County Milk Commission. He was health officer of Newark from 1892 to 1895. Dr. Lehlbach was a member of the Essex County Medical Society, American Health Association, Essex County Milk Commission and the New Jersey State Medical Society.

During the World War he was attached to the Medical Reserve Corps and was attending surgeon at the German Hospital, later Newark Memorial Hospital. He was a member of Newark Lodge, No. 7, F. & A. M. He had been examining surgeon of the United States Shipping Board.

paste sold as 'The Iodine Tooth Paste' has agreed to cease and desist from the sale of this tooth paste under unjustifiable claims." Why? The advertisements, again in the best magazines, ran: "The Iodine Tooth Paste." "Its iodine protects you." "Contains just enough pure, active iodine to accomplish the purpose." "The full iodine efficacy is there." "The chemical element—iodine—has been in general use for about 100 years. Dentists have used iodine in their general practice for more than 40 years. Its germ-destroying power and stimulating effect upon inflamed tissues have been fully tested and accepted beyond any question. Iodine is one of the finest elements that can be used in a tooth paste to keep the gums and mouth in a healthy condition." "That is why this development in the use of iodine will interest you." This sounds very erudite and convincing. It had sales value. What were the facts? "As a matter of fact the tooth paste in question *did not contain any free iodine*, but did contain potassium and calcium iodides, which do not possess the antiseptic or germicidal qualities of free iodine."

About the same time the United States Food and Drug Administration delivered a severe blow at the insecticides sold to farmers and advertised as capable of curing the external parasites of poultry and farm stock if given internally in the drinking water! Other spurious preparations were widely advertised as capable of being absorbed by the sap of trees and bushes in order to control insects and fungi on the outside of said trees and bushes. One of these preparations was sold for \$64 a gallon and could be prepared at a cost of 18 cents a gallon. Finally, glittering and attractive little cases said to contain deadly chemicals which would kill moths and other insects if they were only hung in the room were found neither to purify the air nor kill insects. Obviously, there is money in fraudulent advertising.

Shortly before this the administration announced that the market had been recently cleared of fake "worm expellers" which were glibly advertised to cure live stock of worms, when no drug or mixture of drugs at present known to medical science will act as a vermifuge for all types of animal and poultry worms; many of the drug preparations examined do not act at all. Some of these "honestly" advertised preparations were found to contain 95% water, a little gum, and cod-liver oil.

County Society Reports

BERGEN COUNTY

Charles Littwin, M.D., Reporter

The regular September meeting of the Bergen County Medical Society was held September 13 at the Hackensack Golf Club. This was the yearly Fall Outing Meeting. The meeting started off about 3 p. m. with golf.

M. D's, as a rule, are not considered mathematicians, but to prove this rule, Dr. David Corn showed that he was. He was not only able to count his own strokes, but to keep tabs on others. His mathematics seemed to be accurate, too. We won't mention his score.

Dinner started about 7 o'clock, and the regular

meeting was called to order by President W. W. Schmidt at 8:45 p. m.

There was but 1 new member elected at this meeting; the smallest number at any meeting for the past year. There were a number of applications read for election for the next meeting.

It was decided that the next meeting should be held at the Elks' Club in Hackensack, which was picked as the most central location.

It was decided that the Roster of the Society be published in 4 county papers.

Dr. Vincent Farmer, Chairman of the Public Relations Committee, is publishing weekly articles in the Bergen Evening Record by the courtesy of its editor.

Finishing up the "outing idea" the speakers of the evening were not of the "scientific kind".

Harold S. Stevens, Managing Editor of Medical Economics, put us "hep" to our failures, and gave us a lot of advice.

This was the business end of the talks after which "court" opened and Runyon Colie, the attorney who represents the physicians who are insured in the state group, was our judge and legal adviser. His talk was certainly helpful.

After being told of our faults, it was thought best to have some spiritual advice, and "church" was opened by the Reverend Albert Von Schlieder, and "oh, how we got it!"

There were about 50 members of the Society present, and it was too bad that all the 200 odd members could not have been present to hear these talks. It was so good that after the collation there was so much reluctance to go, that little groups hung about discussing various phases of the 3 talks.

BURLINGTON COUNTY

Roscius I. Downs, M.D., Reporter

The regular meeting of the Burlington County Medical Society was held September 14 at the Burlington County Hospital at Mt. Holly, N. J. President Curtis presided over the 21 members and guests present. The guests included the President of the State Society, Dr. Lippincott; and Drs. Chester I. Ulmer, of Gloucester County; Oran R. Kline, of Camden; Dr. Curtis C. Eves, of Philadelphia.

The minutes of the previous meeting were read and approved.

A letter from the head of the county Y. M. C. A. was read, telling of plans to build a proper infirmary at their Camp Ockanickon and asking for the counsel of representatives of the society on this project. Drs. Kuder, Rogers, Zwick were placed on this committee.

The following applications for membership in the society were read and referred to the Board of Censors for action: Drs. George A. Wescoat, of Moorestown; Samuel F. Busansky, of Fairview Sanatorium; and Carlton Patrick Hogan, of Burlington.

Dr. Newcomb, representing the Medical Advisory Board of the Burlington County Hospital, spoke of the overcrowded condition of the hospital and especially of the Obstetric Department. The capacity is 100 beds. There is a daily average of 108 patients with a high mark of 131 on one occasion. Patients to be admitted for delivery in the Obstetric Department must hereafter be registered at the clinic. Obstetric emergencies must be admitted

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RANDOM THOUGHTS ON MEDICAL ECONOMICS

LINN EMERSON, M.D., F.A.C.S.,
Orange

Although *Medical Ethics* and *Medical Economics* are inextricably bound together, the former has come down to us from the time of Hippocrates while the latter has but recently received recognition as a subject for serious consideration; due, probably, to the fact that until the last 2 generations, the physician was, largely, an *individualist*.

When I was a student at Jefferson Medical College, nearly 40 years ago, the nearest approach to the subject of *medical ethics*, by any member of the Faculty, was an occasional digression on the part of our dear old Professor of Obstetrics, Dr. Theophilus Parvin, a graduate in theology, in law, and in medicine, who, I think, a majority of the students regarded as a pious, impractical idealist whose *ex cathedra* remarks were to be admired and applauded but soon forgotten. The only words ever heard "touchin' on and appertainin' to" the then unregarded topic of *medical economics*, were occasional flashes of biting sarcasm from the caustic tongue of that master of wit and wisdom, "Jack" De Costa, who, with the surgical skill and judgment of the elder Gross, the erudition of Parvin, and the rare teaching facility of Hare, is, unquestionably, Jefferson's most illustrious alumnus.

The world is full of paradoxes, else it might seem that ethics—the science of morals and conduct—could have nothing in common with

economics—the science of production, distribution and consumption of wealth. Divorcing *medical ethics* from *medical economics* would lead to such commercialism that all our ideals and traditions would be shattered, and our noble art cease to be a *profession* and become a *mere trade*. More than 25 years ago, while still a young man, I noted this commercial trend, and I must beg your indulgence while I repeat some of the things I have written in former papers, under titles such as: "Some Humbugs and Hobbies in Medical Practice" * * * "Business and Office Methods in Special Practice" * * * "Economics of Medical Practice" * * * "The Future of the Medical Profession" * * * "The Problem of Medical Charity" * * * and "Economic Philosophy for the Present Day Doctor". I have always been a heretic, and it may interest you to know that you have invited to speak to you one who is discredited is his own county society. The paper last mentioned, read before the Essex County Society last year, caused such a furore among some members that I was accused of racial and religious prejudice and deemed unworthy of a place on the Council. To save the face of my good friend, Dr. Barkhorn, who was then President of the Society, I promptly resigned from the Council, and expect from "now on" to sit on the side-lines and watch the procession go past. In my paper tonight, I shall repeat several of my offensive truths, but less specifically, permitting those whom the shoe fits to put it on themselves. Most of us are so race-, class- and creed-conscious, that we can not tolerate criticism which touches our own kind.

In my early paper on "Humbugs and Hob-

bies", I paid my respects to Tongaline, Santal-Midy, Antifebrin, Carbona, Bromidia, Boro-Formalin, and a host of other semi-patent and proprietary remedies. The Journal of the American Medical Association, whose advertising columns at that time were plastered with advertisements of this kind, refused it for publication. It seems that I was many years ahead of the times, since the advertising standards of the American Medical Association are now as rigid as anyone could desire.

The modern business and commercial world, which stresses economics to the nth degree, pins its faith on—*advertising*. As we are all aware, fully $\frac{3}{4}$ of all medical advertising sets forth either greatly *exaggerated claims* or downright *mis-statements*, and there is every reason to believe the same percentage obtains in other lines. In radio advertising, the percentage may easily be raised to 90%. Every motor car advertised is at least 50% better than any other on the market. Patent breakfast foods, such as "Shredded Door Mat" * * * "Stuffed Rice" * * * "Push" * * * "Crinkles" and "Horn Flakes" are highly extolled, but we doctors know that they are inferior, in nutritional value and vitamin content, to corn grits, milk, eggs, hog and hominy, etc. Our great American philosopher, Will Rogers, hits the nail on the head when he says advertising induces a man to buy something he does not want, does not need, and cannot afford. Yea verily, there is a sucker born every minute, but the supply never catches up with the demand, as there are 2 born to catch him.

Is it a wholesome sign that some members of the medical profession are beginning seriously to discuss the question—whether they shall be permitted to advertise?

If all that has been written in medical and lay periodicals during the past 5 years is any criterion of the importance of the subject, it would seem that every medical school ought to establish a chair of Medical Economics, and *Ethics*. A treatise on the subject could not be embraced in a single volume. In preparing this paper I have accumulated so much material that I am at a loss to know what to use or where to begin.

Pessimists and alarmists, at this time of great depression and economic stress, are indulging in all sorts of wild and irrational predictions. While they may be right in saying that material conditions are changing almost from day to day, the fact remains that mankind has undergone but little change in the 5000 years of written history on which we base our knowledge of the race. That "man's inhumanity to man makes countless thousands mourn", is as true today as in former times. History, from Heroditus and The Bible, Plato and Plutarch, on down to the times of Napoleon and of him to whom Mark Twain so aptly refers as Louis of putrid memory, the American and French Revolutions, our own Civil War, and lastly our great World War, to which our present world-wide troubles can be so largely attributed, is a narrative of holocaust and horror.

Despite this sad picture, the thoughtful and discriminating person cannot but believe that the world is growing better, even though improvement is such a laggard. We must not be discouraged, but remember "that one day is with the Lord as a thousand years, and a thousand years as a day".

At a recent medical meeting where a discussion of the middle-rate for hospital patients was held, one of the surgeons indignantly stated that, compared with the fee of the lawyer or architect, the average fee of the physician or surgeon is a joke. From a purely business standpoint this is no doubt true, but we must not forget that the economics and ethics of the physician are not those of the lawyer or architect.

In his tribute to the doctor, Stevenson places us at the head, and says we are the flower of this present civilization. Proud as I am of this glowing tribute, I feel we must accord to another profession, the clergy, an equal or higher place. Religion is man's greatest need: without it he is but a poor worm of the dust. Despite orthodoxy's ignorance, superstition, sacerdotalism, uncharitableness, narrowmindedness and bigotry, its clergy are almost without exception sincere and honest men. The Catholic priest takes the vow of poverty; the Protestant cleric does not need to, since his parishioners attend to that for him. A man

need not necessarily be orthodox to be religious. In the past it has been the fashion to call those of a different faith—*infidels*. To the Mohammedan all Christians are infidels. Theodore Roosevelt referred to Thomas Paine as a dirty little atheist; Ben Franklin said: "The pamphlets of Paine made the sword of Washington possible." If Washington was the Father of this country, surely Thomas Paine was the Uncle, and Ben Franklin the Grandfather. For all his attacks on the Bible and the Christian religion, to read Bob Ingersoll's oration at his brother's grave, one cannot but feel that he was a profoundly religious man.

If we hope to maintain the position accorded us by Stevenson, we cannot adopt the ethics and economics of the lawyer or the architect, nor hope to attain their incomes. If we ever do, God pity the poor suffering specimens of humanity entrusted to our care. The young man who enters the profession of medicine with the hope of getting wealthy will lose 1 of 2 things, his hope or his ideals—perhaps both.

To most of us the word economics, freely translated, means money, and the discussion of medical economics too often becomes a dissertation on how to make the practice of medicine produce the largest possible income, ignoring its utilitarian value in satisfying the needs of mankind. Among primitive peoples the healing art and religion were closely bound, and the priest and healer were one. As they slowly became separated, the same errors and ideals continued to prevail—on the one hand, magic, incantations, exorcisms, humbuggery and deceit; on the other, the praise-worthy desire to serve suffering and benighted mankind. As civilization progressed, it became obvious that the priest and the doctor could not survive without compensation, so it became the custom for the recipient of spiritual or material benefits to bestow a suitable reward for the service rendered. Since the size of the emolument depended on the value of the service, it became the custom to exaggerate its value by various artifices, and this practice has continued, in varying degree, to the present time. But, even with such exaggeration,

the system is a poor one, and he who depends on appreciation and gratitude will find himself but poorly housed and fed. The recipient appraises the value of a service largely by the evaluation of the one by whom it is rendered, and a prominent New York surgeon, in a recent discussion of medical fees, said that if a doctor does not get a certain number of "kicks" against the size of his charges, he is not charging enough. In other words, if every patient is satisfied, his fees are too low.

The toilsome journey of mankind along the road of civilization for the past 1000 years affords the pessimist little occasion for joy or hope, for even now mankind is but 10% intelligent and 5% good. We modern men and women are not "modern" at all; we still belong to the last generations of cave-dwellers. The foundation for a new era was laid but yesterday. The human race was given its first chance to become truly civilized when it took courage to question all things, and made knowledge and understanding the foundation upon which to create a more reasonable and sensible society of human beings. What will our great grandchildren of 10,000 years hence think of these short 5000 years during which we have kept a written history of our actions and of our thoughts? They will regard the fear of death, which is still common among many people, as a childish superstition which was, perhaps, natural in a race of men who had hung witches as late as the year 1692. Even the hospitals, laboratories and operating rooms of which we are so proud will look like slightly improved workshops of alchemists and medieval surgeons.

G. K. Chesterton, in a recent article, says of America: "Village life is all that remains of real popular life in America. Exactly in so far as they still live in villages they are citizens. Citizenship has vanished from the cities." I heartily agree with him. When our Federal Constitution was formulated, this was a country of villages and for a time democracy seemed for us the *ideal* form of government. To the intelligent observer, it would seem that by our recent rapid change to an industrial, urban and capitalistic civilization, it is doomed to failure. In our cities the ad-

ministration of government has fallen into the hands of "Babbitts" * * * "go-getters" * * * together with the venal and the incompetent. It is truly amazing that the human race, in managing this, its principal business on earth, has managed it so badly. Even religion is better ordered. It fails, of course, in its central function, which is to save men from fear; but in modern times, at least, it is far less costly than government, and far less a nuisance. Government as it is run today becomes the common enemy of all honest and well-disposed persons. Instead of protecting them against outrage and oppression, it becomes the chief agent of outrage and oppression upon them. They cannot trust their property to it, and they cannot trust their lives to it. The more diligent and admirable they are, and hence the more valuable to the race, the more cruelly it exploits them and grinds them down. That they have devised no way to make it more decent, is surely one of the marvels of human history. In all other fields, man is the most inventive and ingenious of animals, but here he is left far behind by the anthropoid apes, and shamed beyond measure by the bees and ants. Thomas Jefferson well said: "The country best governed is the one least governed."

The economic distress of the medical profession at the present time is due to the fact that we are attempting to practice medicine in an urbanized country with village ideals; to harmonize an *ethical code*, with *business methods*.

The question naturally arises—Who is at fault?—and the answer is—everybody. The present age is called the *machine* age. The past 100 years have given us more in the way of science, invention and material progress, than all the preceding thousands of years, and our own science and art of healing have easily kept pace with the others in a material way. But as mankind is but 10% intelligent, the use of all these agencies by the unreasoning multitude has resulted in moral, social and economic chaos. We speak with pride of the American standard of living, but to my mind it leaves much to be desired. Education does not necessarily imply intelligence, nor knowledge wisdom. Shorter hours of labor and in-

creased income do not make one a better citizen if one does not possess the intelligence and wisdom to employ them to advantage. The motor-car, one of the marvels of our time, in the hands of the multitude kills more American citizens annually than did the World War, on which we look with such horror. Prohibition, which abolished the saloon, has produced a new industry—bootlegging—with an income running annually into billions of dollars and furnishing the *underworld* with the means wherewith to buy speedy motor-boats and high-powered motor-cars, to hire killers, and to corrupt all grades of officials, from policemen to judges on the bench; for proof of which I need only call your attention to the recent exposures of graft in Chicago and New York.

The Soviet dictum of the kingship of the worker is but a delusion and a snare. With all the material benefits produced by the worker, man would be in a sad state indeed without the teacher, the doctor and the priest, all 3 literally non-producers. In the old monarchic and aristocratic order of things, they were regarded, in a sense, as glorified servants; communism would relegate them to an even further inferior position. Yet, what would man be without art, literature and music, or the knowledge imparted by the teacher, enabling him to understand, appreciate and enjoy such things? Even in the technical field it is a well known fact that the superlatively skilled technician is seldom a good instructor, and the foundation for the future's great men, is laid by the teacher with but mediocre abilities. Of what use to man are goods and material comforts if he suffers pain and ill health, or if he and his wife and children die prematurely of preventable infectious or contagious diseases? "What shall it profit a man if he gain the whole world and lose his own soul?" To most of us the consolation of our spiritual adviser during the trials and tribulations which beset our thorny path, and his ministrations during our last hours, are of far greater moment than all else in our short journey through this vale of tears.

Despite the lack of regard in which these 3 professions are held, as evinced by the poor

pay which they receive, I venture to assert that the few hundred thousands in their ranks possess more intelligence, character and moral fiber than all the rest of the world combined, and come nearer to following the teachings of our sainted Nazarene.

It is an undisputed fact that a medical education takes the longest and is the most expensive of all. In the "village" era, the medical student spent 1 or 2 years with a preceptor, took 1 or 2 courses of lectures of 6 to 8 weeks each, and then started practicing medicine. That this method produced so many good doctors is due to the fact that the ethics and ideals of medicine have always been those of service, and that every successful doctor must necessarily be a student throughout all his life. The skill and ability formerly possessed by the few are now at the hand of every medical graduate. While the cost of a medical education has mounted steadily and still continues to rise, there can be no question but that it is worth the added cost not only to the medical profession but to the public. To enumerate the benefits of medical and sanitary science to mankind would be superfluous. We are certainly up to the American standard of living, in the maintenance of health and the care of the sick. Yet, from all sides we hear complaints of the *high cost* of illness. To be sure, the cost of illness has increased many fold, just as has the cost of transportation, and of many other things, but the medical care given today is worth what it costs. The fault is that the burden is not fairly and equitably distributed. It is the great mass of *middle-class people* who are objecting to the high cost of combating illness. More than half our population now lives in cities. It costs the moderately income "white-collar" family from \$500 to \$1500 to have a baby or a major surgical operation. This is not only more than the head of the family can afford, but it is more than he should be asked to pay. Naturally, he puts the largest share of the blame on the medical profession. While it is in some measure our fault, it is also, like all our other social economic evils, the fault of everybody. One of the consequences of our American standard of living is that nearly

everyone is living beyond his means, and is only 1 or 2 jumps ahead of the landlord, tax gatherer and sheriff: it is said that 96% of our wealth is in the hands of 20% of our population, and most of us go broke trying to keep up with the Joneses.

The people are poor judges of doctors, and are guided in their selection not so much by knowledge and skill as by manners, clothing, automobile, office equipment, and general appearance of wealth and prosperity. The medical office building is the crowning glory of our medical prodigality. With excessive rent, furniture and equipment, automobile, servants, chauffeur, stenographers, office nurses, technicians, etc., the overhead of the present-day specialist is 5 or 10 times the entire income of an equally successful medical man 50 years ago. Such successful men must needs be hard-boiled, and charge all the traffic will bear, easing their consciences with remembrance of their many years of struggle in arriving, and the large amount of hospital and charity work they continue to perform.

There are fashions in doctors as in everything else, so the citizen of moderate means emulates his more prosperous neighbor, employs a high-priced, reputedly successful doctor, and then wails about the excessive cost of illness. All this is the fault of our inequitable distribution of the burden of medical charity, which is largely borne by the middle class layman and the young doctor. The code of ethics has been facetiously referred to as a fence erected by the old fellows to keep the young fellows out. When John Doe breaks his leg and young Dr. Jones treats him, if the doctor's name appears in the local paper, he gets a black eye with his confrères for unethical advertising. But, when Tooth Barkington goes to America's famous \$3,000,000 eye hospital for a cataract operation, it is front page news for all the dailies, and as a result, other patients flock to that clinic in greater numbers. Yet, I have knowledge of a capable and ethical young oculist who was denied membership in the American Ophthalmological Society because the Directory of his town designated him as an eye and ear specialist, despite the fact that he had never seen a copy of that

Directory and had not even known of its existence.

In the village type of medical practice, the doctor must needs treat all classes of patients as they present themselves. There is no clinic or hospital, so the better-class patients pay him well, the middle and lower class citizens pay what they can, and if he stands well personally and politically with the Overseer of the Poor, he may get 50 cents or \$1 per visit for his indigent patients. This may sound like pretty poor business, but the lot of the country doctor is far superior to that of the average city practitioner. If a few thousand young fellows who are now hanging on by the skin of their teeth in the cities would migrate to the villages, where there is such great need for their services, in a few years they would be property owners and prominent and respected citizens, with their children living in a far better economic, social, intellectual, moral and religious atmosphere.

With development of the city came the hospital, first in the form of a dispensary, and then the special clinic. These were started by medical men of exceptional skill, character and ideals, who wished to give their services (valuable as they were) to the diseased, suffering poor and needy. That persons other than this indigent class would take advantage of the situation was not even dreamed. Administration of these clinics and hospitals soon grew too time-consuming for such busy physicians, though the prestige accruing as a result of his hospital position and well-known clinical experience produced enormous private practices, with such success that fees grew correspondingly. The public having learned that the services of great specialists could be secured at the clinic free of charge, the clinic attendance increased and the unfairness of such conduct has never been made clear even to them. Thus, there has grown up in urban communities an unfair, unsocial, uneconomic system of medical practice, against which no one seems to have the sense or courage to protest. Such exploitation of the medical profession has gone on for 25 years, until it has now reached a point where all our hospitals and clinics are in financial distress, the younger

members of the profession are worse off than clerks and mechanics, and our great *middle class* is bewailing the high cost of illness, and placing most of the blame on the medical profession.

The Superintendent of Johns Hopkins Hospital, in a recent address, said that the excessive cost of illness was due to the medical specialist's fee. We medical men know so well how improvidently and wastefully some large hospitals are built and conducted that it seems a waste of time to present any argument. The larger the hospital, the greater the waste and unnecessary motion. Why is the fee of the medical specialist excessive? On account of our inequitable and uneconomic system of medical practice, whereby his earnings are limited to a few short years.

In the March number of Medical Economics, Dr. Charles Gordon Heyd, President of the Medical Society of the County of New York, said that it had been estimated that physicians treat $\frac{1}{8}$ of the population of the United States free of charge. I feel that this estimate is entirely too low, particularly in the cities which, according to our latest census, contain more than $\frac{1}{2}$ our population. Reviewing my own 35 years of practice, I can honestly say that at least 50% of my work has been done free of charge. Even now, when I am Chief of Service and have a number of junior members of the Staff, I receive fees for about 50% of the mastoid operations I perform, about 25% of the cataract operations, and about 15% of the tonsillectomies and adenoidectomies. Comparisons are odious, but I wish to give you some figures for which I can vouch.

At the age of 21, I gave up a fairly good office position to start studying medicine. At that time a medical course was much shorter and less expensive than at present. Nevertheless, it was more than 10 years before my net annual income exceeded \$1000 and I was 36 before it went above \$5000. I believe these figures about approximate the experience of the average medical man.

It should be obvious that the ideals and economic methods of village practice, which still obtained when our first dispensaries and hos-

pitals were started, are now untenable. Our adherence to them has resulted in exploitation of the medical profession by all branches of society. The fact that we have been able to partially shift the burden, and pass a portion on to the moderately well-to-do patients, in no sense justifies continuance of our present uneconomic methods.

Sir Andrew Clark, in his medical reminiscences, said he had worked 10 years for bread, 10 years for bread and butter, and 20 years for cakes and ale. Practically every successful medical man can say the same. In our evolution from early village life to our present standard of living, we have step by step developed public schools, municipal water supply, sewer systems, police and fire protection, health departments, almshouses, insane asylums, and finally the modern hospital. It took time to convince many of the tax-payers that the cost of all these departments should be equitably borne by a general tax levy, but practically no one now questions the justice of such a procedure.

In our larger cities there are a few municipal hospitals, maintained at general public expense, but *the medical staffs are practically always unpaid*, just as they are for all free ward and dispensary work in general hospitals. With all these services maintained at public expense, and with old age pensions, insurance against illness, insurance against unemployment, and the dole just in the offing, why should the medical profession alone carry at least half the burden of ill indigents, which is as much a municipal affair as any of these other special departments?

In a recent report, Dr. Ray Lyman Wilbur, Chairman of the National Committee on the Costs of Medical Care, summarizes as follows:

(1) One of the most important facts to recognize is that all the people do not obtain all the care which they really need, either quantitatively or qualitatively.

(2) The cost is unevenly distributed among the people, causing hardship to some while others pay little or nothing; and this unevenness is of such a character that families of moderate means, or of low incomes, cannot fully overcome its effects merely by individual family budgeting.

(3) The incomes of medical practitioners are frequently so uncertain, so irregular, and so low, as to constitute a grave problem—a problem with social as well as individual consequences.

(4) Our present methods of providing and paying for medical service are, from the social point of view, wasteful and uneconomic.

That the doctor has been left out in the cold in this hospital problem is largely his own fault. Owing to his ideals, and to tradition, his economic progress in the past 50 years has been practically nil. As with all other human beings, our besetting sin is ignorance. In the desire to maintain our ideals of service, we have gone on and on giving, until $\frac{1}{2}$ our time is now being given to free work. But the laws of nature are irrevocable and unchangeable—someone must pay. In this particular instance, it is the young doctor and the middle-class patient. Why have we not voiced a protest sooner? Because the young doctor is in no position to protest, while we older men, who have "arrived", are too selfish, indolent and self-satisfied to take any action which might make us unpopular. We are like the boss chimney-sweep in Kingsley's "Water Babies", who cuffed and abused his apprentice. The poor little 'prentice boy took his punishment with equanimity, consoling himself with the thought that in time he would be a boss sweep and would likewise beat his apprentice. When our young medical men grow restive and protest at the years they must serve in the hospital dispensary without hope of fee or reward, they are told by the Chief that he likewise so served, therefore must they so serve. Selah! Such is tradition. What is tradition? Standing still! *Laissez faire!* The economic improvement we need is not such as to enable the doctor earning \$25,000 a year to earn a larger sum, but a plan which will enable the one earning less than \$2500 to earn more.

Dr. George M. Gould wrote an article on the reception of medical discoveries, citing the abuse and contumely heaped upon Harvey, Jenner, Pasteur, Marion Sims, Lord Lister and many others, by members of their own profession. Tradition encourages us to follow, ignorantly, all our prejudices—social, political, racial, and religious. Every intelligent medical man knows that under certain circumstances sterilization, contraception, and even abortion, are necessary and humane procedures; yet, some of us permit ignorance

and prejudice to overshadow sound judgment and set our faces against them under any and all circumstances.

Race prejudice prevents the foreign-born physician from coming to us, and the same prejudice prevents us from making any advances to him. We do not ask him to join our county medical society. In a published list of 138 New York City doctors arrested for selling their prescription books, and other violations of the narcotic law, only one was a member of his county society. Many a young doctor, native as well as foreign-born, has gone astray just for lack of the strong right hand of fellowship during the early months of his professional life. To be sure, there are some men who are born crooked, but usually the young doctor sells his first book of whiskey prescriptions, or commits his first abortion, because of economic stress. How can we improve the condition of the young medical man? By casting tradition aside and entirely readjusting our economic system of medical practice. Can this be done? Yes, in time, with thorough organization and effort.

In my paper on "Some Humbugs and Hobbies in Medical Practice", I predicted the gradual socialization of medical practice. In the discussion which followed, I was severely criticized by the "old guard" for my advanced ideas. Then years later, before the same society, in a paper on "The Future of the Medical Profession", I concluded as follows:

"The future of the medical profession will doubtless be somewhat as follows:

(1) The entrance on the study of medicine with the frank avowal of a career for service to one's country and suffering humanity.

(2) Medical departments for state universities, with the expense of medical education largely borne by the state. This will do away with the exclusion of poor but worthy and capable young men from the profession on account of the high cost of medical education.

(3) A National Bureau of Health supervising and coöperating with state bureaus of health, having supervision and control of all matters pertaining to sanitation, public health and preventive medicine.

(4) Public medical service for industrial workers and their families, similar to our present public school system. Compensation of physicians engaged in this work to be regulated by the character of the work done and time given to it.

(5) Uniform state licensure.

(6) More than one grade of practitioner, thus shortening the period of preparation for those who wish to do only routine sanitary, public health, laboratory or industrial work. Opportunity for study and advancement for such as may desire to become internists, surgeons or specialists, and special licensure (or diplomas) for those who attain this greater proficiency. The American Ophthalmological Society, the American Academy of Ophthalmology, and the Ophthalmic Section of the American Medical Association recently established a National Examining Board so that the profession and public may know that specialists holding its Certificate are competent to practice ophthalmology; and the other specialties are rapidly following that lead.

(7) Hospitals and dispensaries largely under the supervision of the Bureau of Health. All interns and members of staff will be salaried. Heads of departments, able men with adequate compensation, as in the Peter Bent Brigham and the Johns Hopkins hospitals. If service is not large enough to occupy all the time of physicians, payment in proportion to time spent.

(8) Old age pensions and employment in departments of medical service for which the aged medical man is fitted."

Again, before the same society last June, I took up the cudgels in a paper on "The Problem of Medical Charity", unqualifiedly condemned our present hospital system, and recommended graded compensation to doctors for all hospital and dispensary work. Imagine my surprise and delight to learn that the President of the American Medical Association, in his annual address delivered that same week, was in agreement with me. Now, this is a radical innovation. How can it be accomplished? By organization and education. With exception of the farmer, the medical profession is the most poorly organized of any class

in the country. Any city department or any industrial corporation can get all the doctors it wishes to do \$5000 worth of medical work for \$500 a year. If it requires the services of a plumber or carpenter, it pays, without question, union wages. The economic distress of the young medical man is such that he is ready to accept almost any salaried position which will help him eke out an existence until he can obtain a foot-hold. Is it any wonder that some of them go wrong? *Facilis descensus Avernii*, and some of those who go down never come up again. If the young medical man ventures to protest or presume, he is promptly squelched by his Chief who, being in possession of an assured position, sees no evil in the system or, if he sees it, ignores it. Paradoxical as it may seem, the man who has the hardest struggle to reach the top is almost without exception callous and unsympathetic toward those whom he has left behind.

Why is it that we get so little credit from the public for all our medical charity? Because a few doctors have large incomes and charge people more than they can afford to pay, it is the general impression that we are a wealthy class, and that we gouge at every opportunity. Also, since the appearance of prosperity is of necessity our principal stock in trade, and the public is guided by appearances, the masses think that because we *appear* prosperous, we *are* prosperous.

The present method of financing and conducting the modern hospital is economically unsound. The pay patients are often compelled to pay more than they can afford, and the time, effort and money spent in the hospital drive is excessive. The money comes from the comparatively few who are liberal and charitable, while no matter how well able they are to pay, the niggardly and stingy pay but little. Every hospital, municipal or private, should be paid the actual cost of every charity patient by the municipality from which that patient comes, and in this account should be included the cost of medical attendance. All medical men should receive a salary for ward and dispensary work, graded according to the value of the service and time given. There should be a much larger number of

lower-priced rooms, and the fees charged for medical and surgical services of all kinds should be likewise graded. This scale of prices should be shown the patient or his family at the time of admission. There should be no extras. The whole amount of the bill should be collected by the hospital, and if but partly paid, the amount collected shared with the doctor on a percentage basis.

By the present arrangement the patient goes in blindly; he takes a private room which he cannot afford; hires unnecessary special nurses; and, when it is all over, finds it has cost him twice what he expected. As a result, the hospital and nurses are paid *and the doctor waits*. Only with patients in the higher-priced, private rooms, should the doctor be privileged to set his own price on the services rendered. Redistribution of the cost of illness, with payment of the physician for all hospital work, does not necessarily mean greater income for the profession as a whole, but greater income for those of the younger and lower ranks. No sensible medical man should desire wealth, as it is only a curse. It kills initiative, and is conducive to indolence, sloth and over-indulgence. The man with an income of \$10,000 per year is more to be envied than one with \$100,000 per year, and his children are far more fortunate. The physician must needs be a student and a worker. If not prepared to give over-time and service to mankind, he is in the wrong profession.

That temperance, self-control, poverty and work are best for mankind is well exemplified by the Catholic priesthood, whose members excel all other classes in health, happiness and longevity.

Most medical discoveries and advances are not made by men with large practices and incomes, but by poor, under-paid, enthusiastic laboratory workers. The estate of the late Dr. Noguchi was appraised at less than \$3000. Osler, greatest of all modern physicians, a poor clergyman's son, remained poor all his life, and only lived in a manner befitting his station because he, fortunately, had a wealthy brother, wife and friends.

Before we can make and progress in re-education of the public we must reeducate ourselves, cast aside our prejudices, and forget

tradition. The bug-bear of *state medicine* has stood in the way of medical progress for more than a generation. Every change that has the faintest odor of *state medicine* is taboo with the medical profession. *In avoiding the essence, we have over-looked the substance.* State medicine is already in force in many departments of medical practice, and we are foolishly fighting the inevitable. Shall we wait until state medicine is thrust upon us by a tricky political opportunist, like Lloyd George, to be administered by politicians, or shall we boldly meet the issue and formulate a plan to meet the needs of present-day civilization, and, ourselves, take over its administration?

Even if our ideals and traditions must be modified, with malice toward none and charity for all, with firmness in the right as God gives us to see the right, let us continue to carry on the work in which we are engaged, and bind up this nation's wounds.

GAS BACILLUS BACTEREMIA FOLLOWING ABORTION

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King,* in a recent review of the incidence of gas bacillus infection in civil life, reports from the literature comparatively few cases occurring in the puerperium or in which the avenue of invasion was the uterus. As, from his very comprehensive review of the subject, gas bacillus infection by this portal of entry seems to be relatively uncommon, the following case is recorded.

G. H., a young, white, married female, aged 19, was admitted to the service of Dr. D. B. Allman at the Atlantic City Hospital on February 12, 1930. The physician by whom she was referred stated that she had experienced an incomplete abortion, and that the immediate cause of admission was the sudden onset, that

morning, of cyanosis and dyspnea. Because of the husband's extremely nervous state, a clear-cut history could not be obtained from him (he accompanied patient to the hospital), but the salient features were as follows:

The patient had, some time previous, a miscarriage, at 5 months, recovery from which was uneventful until 3 days before admission, when she had a dilatation and curettage which, apparently, had been done at home. The day before admission she became restless and on the morning of admission suddenly became acutely dyspneic and cyanotic. On examination, she presented a peculiar and striking appearance, being evidently markedly orthopneic and deeply cyanotic. The entire body showed pronounced discoloration, ranging from a color suggestive of jaundice, to a rusty, bluish-red mottling; this last being particularly noticeable in the lobes of the ears, tip of nose, lips, terminal phalanges of fingers, and feet and gums almost black. It also occurred in irregular patches over the chest, back and abdomen.

Temperature was 103°; pulse 170, weak, and fluttering. Patient was evidently in *extremis* and, in fact, died within an hour after admission. Her urine contained 600 mgm. % of albumen, occasional coarse granular casts (2 per low-power field), and many red blood cells. A smear from the vaginal discharge showed a varied bacterial flora, among which were Gram-negative bacilli, presumably of the colon group, and moderate numbers of Gram-positive diplococci, morphologically resembling the pneumococcus. Blood examination showed: hemoglobin 4.14 gm. % (30%); W. B. C., 26,000, of which 76% were polys and 22% small lymphocytes; study of red-cell morphology, indicated marked secondary anemia.

The autopsy findings follow: Body, that of an adult, white female, apparently in her early thirties; entire body has a dusky red cyanotic hue, tips of fingers and toes being deeply grayish-blue; upper part of chest, neck and face presenting an increasingly deep purplish-red color, nose, lips and areas around eyes being deeply colored; frothy, blood-stained fluid exuded from nose and mouth; abdomen slightly distended and showing an old ar scar; arms and abdomen

* King, W. E., Gas Bacillus Infection in Civil Life, Amer. Jour. Surg., 14:2:460, 1931.

presenting a questionable subcutaneous crepitus; and, there was a bloody vaginal discharge. Pleural cavities contain bloody fluid. Lungs grossly normal. When the heart was opened, air escaped with frothy blood; myocardium soft, flabby, friable and injected. Omentum congested and small bowel deeply injected; showing a beginning peritonitis: no adhesions; pelvic cavity contained a moderately large amount of free bloody fluid. When uterus is exposed and lifted up, air escapes from a perforation in fundus just posterior to the superior surface; tubes deeply congested. Uterus is enlarged to about size of a 3 months' pregnancy and, when opened, is found well filled with a large piece of placenta. There is laceration of cervix. Kidneys are large, soft and swollen, and show intense hyperemia, the cortex resembling splenic pulp. No other pathologic findings of moment.

Anatomic diagnosis: Perforation of uterus; abortion; acute, toxic, hemorrhagic nephritis; gas bacillus bacteremia (?).

Bacteriologic report: *Bacillus aërogens capsulatus* (B. Welchii), was recovered from uterine cavity in association with staphylococci and *B. coli*; and in pure culture from peritoneal fluid, heart blood, spleen and liver. The portal of entry was, of course, quite obvious, as was also the fulminating character of the infection.

FUNCTIONAL INDIGESTION

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Functional indigestion, often termed *dyspepsia*, is a form of digestive disturbance in which no tangible organic lesion can be demonstrated. A systematic examination and study of every patient will, not infrequently, reveal conditions not previously thought of but which need to be corrected before we can give the patient relief or cure. A full systematic history of every patient, but especially those who complain of prolonged or so-called chronic affections, should be taken; ancestry, childhood diseases, habits, character of diet, busi-

ness, exercise and many other conditions are factors in a proper study. Always examine for sinus discharges, adenoids and diseased tonsils, as one or all may cause large amounts of purulent mucus to drip into the pharynx, where it is swallowed. Many cases of indigestion and poor appetite owe their origin to these factors. Examine the mouth and teeth for pyorrhea, with its fetid and poisonous bacteria. How about the molars? Do they approximate and is there a sufficient number to permit proper mastication? If not, is there a well-fitting plate? Be sure that your patient takes sufficient time to properly masticate his food and that he does not hurry his meal. Many cases of indigestion are cured by attention to these factors.

Every physician should study dietetics and a cook book. There are no more prolific sources of digestive disturbance than those of improper diet and drink. Excesses of any kind will cause discomfort, but particularly of sugars and sweets. Have you ever figured how many teaspoonfuls of sugar some persons take in a day, in their coffee, tea, sweet drinks, candy and desserts? It is not uncommon to find one who takes 2 or 3 cups, or glasses, of liquid at each meal, with 2 or 3 teaspoonfuls of sugar in each, which means 12 to 18 teaspoonfuls of sugar in his drinks, and 2 to 6 more with his cereals, desserts and other foods. This amount of sugar in one day will tax the digestion of any person, but especially of one who leads a sedentary life. Acid eructations, fermentive gases and epigastric distress, each suggestive of organic lesions, can be definitely removed in most cases by diminishing or entirely eliminating sweets. Sweetened coffee or tea causes many digestive disturbances and the sugar should be carefully regulated or eliminated. Over-eating, and eating too frequently lead to distress, as does also the free use of condiments.

A careful study of sea-foods indicates that more cases of indigestion follow their use if they are taken in combination with ices or heavy, sweet desserts. It is always a safe procedure to omit sweets and substitute fruit with a fish meal. Many people in whom no organic lesion can be demonstrated are distressed if they take vegetable soups or purée

of tomato; they do best on a dry diet. It is well to remember that some persons have a true food allergy, and only by the closest study can it be eliminated.

The profession at large pays too little attention to dietetics, which should be made a major study. Most patients suffering from functional indigestion may be cured without drugs, if proper care is given to etiology and diet. However, it is *not good practice* to ignore drugs completely, as they have their appropriate places, and most people are not content with drugless treatment; they must have some medicine to take. A well-balanced diet, not overloaded with sweets, grease or roughage, will benefit both sick and well. Break the magnesia or soda habit, by diet. Inquire carefully as to the drinking of soft beverages, home made beers or wines, and other liquors. Many persons suffer from indulgence in them. Tobacco, a narcotic poison, markedly increases salivary and gastric secretions and therefore it is not infrequently found to be the causative factor in some of the worst and most obstinate cases of functional indigestion. And, further, tobacco seems to cause most trouble when used before meals or when the stomach is empty. The *proprietary and patented* digestive preparations sold to the laity need only to be mentioned to be condemned. Intestinal parasites often cause symptoms of functional indigestion and that should always be borne in mind, especially in the case of children.

In our studies of functional indigestion and disorders of the upper abdomen, too little consideration has been given to the pancreas, yet many of our most obstinate conditions have been referable to disturbed pancreatic secretion. In studying the pancreas, always be on the watch for possible organic lesions. Since the discovery of insulin, much has been written about its effect on pancreatic, biliary and gastric secretions, and it has been definitely shown that the administration of insulin markedly increases the fluids by its action on the vagus. Malnutrition suggests improper digestive secretions and, if hygienic and dietetic measures fail to correct it, we should remember that small doses of insulin daily will improve carbohydrate assimilation and often cor-

rect the condition. A subacute pancreatitis is easily overlooked and, when neglected, soon flares into an acute condition. In obstinate cases, look carefully for malignancy.

Patients with so-called *nervous indigestion* will usually tax your patience unless you are willing to be sympathetic and take time to study them carefully. Psychology plays an important part in their treatment. That great medical authority, Dr. S. Weir Mitchell, gave the medical profession an example of what could be done for these patients. There are 2 types of patients with nervous indigestion: the type which wants to get well, and the one which glories in being ill. The former can usually be cured, unless organic abnormalities are found, by: patience; time; encouragement; positive statements which you can substantiate; dietetics; such medication as may be indicated; proper exercises, active or passive; and, moderate or total rest. These patients are usually very alert, have studied their own condition, and cannot be bluffed or told that nothing is wrong with them. The real advantage in sending such patients to Baths, Spas and rest-homes, lies in the enforced rest, release from care, and living systematically hour by hour. Massage and electricity are valuable adjuncts in treatment. Unless one is painstaking, sympathetic, unruffled and willing to take time with such patients, failure of treatment will always follow. The stomach tube, a much abused and improperly used instrument, gastric lavage, or gall-bladder drainage, sometimes produce psychic effects sufficiently marked to bring about improvement or cure; but, too frequently these patients are subjected to colonic irrigations or other annoying and futile procedures.

Many books have been written on indigestion, but the outstanding classic of this decade is the small work by Alvarez entitled, "Nervous Indigestion".

When treating functional indigestion, always bear in mind the possibility of organic lesions. If the patient complaining of indigestion is not cured or relieved in a reasonably short course of treatment, further investigation should be made, using x-rays and laboratory devices to secure the proper diagnosis.

Indigestion is a red flag, a danger signal that should never be considered as trivial. Patients do not wish to be subjected to operation unless necessary. They look to the internist to use every known method of diagnostic study, to guide them to the safest medical or surgical treatment. Long delays are to be avoided, as possibly endangering the chance for recovery by surgical methods. The surgeon and the internist, when consulting about such patients, should work hand in hand, and with unbiased judgment. Many cases of functional indigestion have an undiagnosed background, as is indicated by the number of autopsies that disclose scars of gastric or duodenal ulcers, which had occurred and become healed without apparent symptom or diagnosis.

The author regrets that in the treatment of many hundreds of patients, for apparent functional indigestion, in his 38 years of sea-shore practice, it has been impossible to follow up the majority of those patients because they have remained here for only a few days or weeks. Tabulation is almost impossible under such conditions, and *end-results* quite uncertain. Undoubtedly, some cases of organic disease must have developed later. Most of the patients treated, however, appear to have been typical cases of functional indigestion, due to the usual indiscretions in diet, over-eating, and the mixing of foods that were incompatible.

DISCUSSION

Dr. D. Ward Scanlan (Atlantic City): Dr. Stewart brings up a very ancient subject and yet one that is always very interesting and worth listening to because it calls to our attention many phases of nervous indigestion too often forgotten. He has outlined and explained the manifestations of nervous indigestion and pointed out that there are various differential diagnoses that must be made in considering a patient presenting himself with what might be considered nervous or functional indigestion.

I will confine this discussion to a few miscellaneous remarks relative to the subject and mention some points in differential diagnosis.

The education of the public today has made placebos obsolete. Psychic analysis and explanations based upon scientific facts have replaced the placebo. We still occasionally, but seldom, need placebos, such as were formerly used, especially in nervous indigestion.

Diet also replaces the placebo, particularly in treatment of various indigestions.

Knowledge of diet has made a tremendous advance and it is worth the time of all of us who haven't yet done so to make a special study of

diet, and it can be done very easily. There are lots of good books on the market relating to diet, which will not take up much of your time and will give you some very fine diet lists for practically every condition.

In the differential diagnosis in nervous indigestion, there is 1 cause of that condition which is not stressed very often and I will just take a few minutes to call it to your attention, and that is the relation of functional disturbance of the heart and the vascular system.

There are not a few cases of indigestion due to a loss of function of heart muscle power. The disturbance is brought about by a condition of mild passive congestion, and I can truthfully say that not a few cases of digestive disturbances in my own hands have been cleared up by judicious care and treatment of what is a loss of heart function.

Occasionally we run across a rare case in which a person has not suffered from indigestion and yet the autopsy reveals queer things.

I will close my discussion with this recent case we had in the hospital: A man who had been comparatively well all his life, about a year ago complained of weakness and pains in his back. A severe secondary anemia suggested malignancy but it was impossible to determine where the malignancy was; not even could a tumor be palpated in the abdomen. There weren't any of the old classical signs of epigastric distress. The rectal specialist couldn't find anything but suspicion of lump with a high sigmoidoscope. I had the privilege of being present at the autopsy and he was loaded with metastatic carcinoma. The retroperitoneal glands were all enlarged and yet, although that man was a cadaver almost, these could not be palpated before death.

The point about this particular case is that the man had a carcinoma proximal to the pylorus in a quiet area of the stomach which had never given him any symptoms. It was about 2.5 centimeters in diameter and elevated above the surface of the mucosa about 0.25 centimeter.

Personally I had never seen such a case before of the existence of a carcinoma of the stomach with metastasis that would never give symptoms. This case, of course, illustrates the absolute necessity of an x-ray study of the stomach and duodenum, if the patient can afford it. If the patient can't afford the entire tract study, he can at least afford that, and the existence of gastric or duodenal ulcers cannot be diagnosed without x-rays. A diagnosis of nervous indigestion will not hold until pathologic physiology has been proved nonexistent.

Dr. Harold S. Davidson (Atlantic City): It takes a great deal of courage on Dr. Stewart's part to open up this question of functional indigestion. These patients, of course, all have a characteristic train of symptoms. They all complain of flatulency. Dr. Stewart has already ruled out all the organic causes of disease.

There are many things we don't know about this question: Why these patients should have gas, for instance. We know, or we believe we know, that food residue and gases are taken care of in a certain, definite, set manner. Gases, we suppose, are absorbed into the bloodstream and eliminated through the lungs. Why some people can absorb and eliminate these gases better than others is one thing we do not know. We believe it may be that some of these gases are not easily assimilable.

There are a great many causes for functional indigestion which we do know something about.

We know that emotion, fright, worry, will slow up the emptying time of the stomach. We know it will interfere with the outpouring of digestive juices, and the food is left in the intestine undigested, undergoes putrefaction, and is a prolific cause of digestive symptoms for which there is no organic cause.

We know also that emotion will cause blanching and flushing of the skin and it is fair to suppose it will cause blanching and flushing of the mucous membrane as well. That brings up the whole question of intestinal allergy for which you have no organic cause, which can be classed as one cause of functional indigestion.

Constipation is a prolific cause of functional indigestion. When you get a fecal mass undergoing fermentation, the mucous membrane is irritated and a characteristic train of symptoms is set up.

One characteristic symptom of this type of indigestion is depression. These patients are horribly depressed and complain of a sense of weight in their chest and, as Libman, of New York, pointed out, this can be very readily relieved by high enemas of sodium carbonate solution, which is highly alkaline and which gives satisfaction in the treatment of this particular type of indigestion.

Of course, as Alvarez pointed out in a book to which Dr. Stewart referred, these patients, or a large percentage of them, are constitutionally inadequate to begin with. They are not so constituted that they can stand the stress and strain of our present-day living and it seems to me we should adopt a little more sympathetic attitude toward this type of patient. Instead of taking out teeth and tonsils, instituting gall-bladder drainage and high colonic irrigations, and giving them diets to work out, if we would explain to them that they have bodies which aren't quite up to the needs of their present-day living, we could ask them to make the best of what they have, slow up a little bit, conserve their energy, and they could get along very well with their defective mechanism and, with a little care, could carry on pretty nearly as well as the next fellow.

Dr. A. E. Jaffin (Jersey City): I should like to take this opportunity to discuss the very interesting subject which Dr. Stewart has raised, and make a plea for a greater interest in this field because, as you all know, it really constitutes a tremendously large percentage of private office practice.

To begin with, I should like to emphasize his suggestion that we all read this classic of Alvarez on nervous indigestion, particularly so that we can eliminate the group of cases he aptly describes as "pseudo-ulcers, pseudo-gall-bladders", pseudo-this and pseudo-that. If that were taken more to heart, we, who practice in the larger cities and have a more fixed population than Dr. Stewart and other coast physicians have with their transients, would have less opportunity of seeing so many of these patients after they have passed through the surgeon's hands for pseudo-gall-bladders and appendices, and pseudo-ulcers, and so forth, still unrelieved. I think it is a sad indictment of the profession as a whole, that we should have to make this admission, but I can see no way of eliminating it except by studying the cases of so-called functional indigestion a little more intensively and a little more comprehensively.

I don't think we should look upon constipation

and gas as causes for symptoms but rather as effects and look further for the real causes. It is a physiological fact that exhaustion causes increased irritability. It is also obvious that overstimulation causes exhaustion, and, as Dr. Stewart indicated, if we go back into the mode of life of these people and analyze some of their treatment, we will find plenty of factors causing overstimulation, exhaustion, and abnormal irritability with a spastic colon which gives the pockets of gas in the splenic flexure, now simulating heart disease, in the cecum again simulating "chronic appendicitis".

It has helped me a great deal to think of these things in a school-boy fashion of C's: coffee, cathartics, condiments, and caries, for lack of a better reminder of the absent molars that Dr. Stewart referred to. In other words, then, our duty in these cases is first to determine whether it is organic or pseudo-organic; and surgery should never be resorted to until that question has been settled, for, after all, the field of surgery is but a department of therapy in the field of medicine and no form of therapy should be instituted until the indication for the same has been definitely established.

Dr. Thomas B. Christian (Greystone Park): There is one phase of the subject I want to mention because it is interesting from the standpoint of our patients in an institution, and that is the element of psychic indigestion, which is a type of nervous indigestion. We have a number of cases of psychoses with the predominating symptoms referred to the stomach.

We have always connected the autonomic nervous system directly with the stomach and they complain quite often of straight stomach symptoms. For example, a great many of the patients treated with diet get well immediately, when we transfer them to another building and give them cornbeef and cabbage and hot dogs, and they are still in very good condition.

Another very important illustration of this is the fact that so many of our insane patients complain of stomach indigestion which is not pathologic, and anything that the patient puts in his stomach will cause various forms of functional indigestion.

I might mention one case as an example, though the diagnosis might be wrong in this, perhaps. This girl was in the outdoor clinic and came in with all types of symptoms. She was examined by outside physicians. One started to operate on the gall-bladder. Another said she had stomach trouble. She had vomiting spells, gas pains, difficulty in swallowing, etc.

She was a young girl, 23 years of age, married about 4 years. Due to economic circumstances she refused to have children. She used contraceptive measures. She was the type of girl who loved children, and whether sublimating her desire for children caused her to have this indigestion we did not know, but we studied the case and advised the girl to go home and become pregnant and have a child, and after the child was born, she was absolutely well.

I want to stress the interesting point of the nervous type of indigestion from the psychic standpoint. Many cases are psychic in origin. Many patients love to have stomach symptoms.

Freud said that the stomach and mouth were associated with sexual appetite and quotes the tribe of natives in certain parts of South America about which you have heard and read, where the

sexual life is in the open but they refuse to let anyone see them eat.

Dr. W. Blair Stewart (Atlantic City): Speaking of the cases that are too sedentary in habit, the question of physiotherapy comes up and plays a very important part in your treatment. Many of these cases of functional indigestion are found among those who spend most of their time at their office desks, who ride back and forth to their work, who rarely ever do any walking, who have no physical exercise of any character whatever, and who get very limited amounts of sleep; the housewife who spends all of her time drudging from morning till night, stating she has enough exercise to do what is necessary to bring about a cure of her indigestion. Those are the types particularly that come to the physician for help.

If we will pay more attention to the question of outdoor exercise, whether it be in the form of golf, playing a game of ball, walking, boxing, or exercise of any other character, many of these cases, particularly the neurotic types, will be markedly improved. Put them to work with their daily morning exercises before an open window. It does 2 things: It brings about a better circulation, it makes them get to work with a glow, and it produces a psychic effect that really is tremendously great in the long run.

Do not be misled by the patient who comes into your office constantly belching and throwing out what appears to be large quantities of gas. A large proportion of them deliberately swallow and then regurgitate the air. This is particularly noticeable in the neurotic and the psychoneurotic types.

I appreciate very much the remarks that have been made by those who have spoken and I assure you that if all of us will be more sympathetic, willing to take more time, and not turn these cases down too lightly, we will be more successful in our work and we will have a happier set of patients with whom we will deal in the future.

MANAGEMENT OF PEPTIC ULCER

THOMAS K. LEWIS, M.D.,

Camden, N. J.

The purpose of this paper is to discuss the management of peptic ulcer as considered by the general practitioner, and it is my firm opinion that control should rest with the family physician, in collaboration, if you choose, with the gastro-enterologist, because; the family physician's intimate knowledge of the patient's family history; his frequent personal contacts; his opportunity for close guidance and timely advice, and, above all, his own confidence-inspiring personality, make him of inestimable value in obtaining a successful outcome of treatment. *The peptic ulcer vic-*

tim must, probably more than any other person, *be treated as a patient rather than as a case.*

In view of other papers on this program, the etiology, pathology and modus operandi of ulcer formation will not be discussed. However, the neurotic element, as an important contributing etiologic factor, must be stressed. In recent years there has developed a stronger realization of the important rôle played in peptic ulcer production by lack of balance in the vegetative nervous system. Reviewing the histories of patients treated during the past 10 years, we note that in the majority the nervous system has required most attention; that sedative medication was required at some time or other by every one of them; and that our male patients, particularly, had acute exacerbation of symptoms or recurrences following periods of business or financial stress. With considerable satisfaction, one notes the increasing number of articles appearing, devoted to exposition of the importance of this "neurogenic" element, as one writer has aptly termed it. It seems undebatable that there is an ulcer type of individual; there is also a growing belief that certain individuals inherit an ulcer potentiality. In such individuals, stress of life seems to serve as the exciting factor in production of the lesion, whereas rest and relief from strain are important factors in the alleviation of symptoms.

An experience that you have all probably had is that of finding that an intercurrent disease, or a surgical emergency, has caused complete disappearance of the ulcer symptomatology, such as happened in this case: J. W., male, aged 48, while under treatment, in March 1928, for duodenal ulcer, developed a strangulated hernia which required emergency surgery. Following operation, which was successful, the ulcer history was called to the attention of the surgeon, who dismissed it with the remark that, while at rest in the hospital, the patient would have no trouble. Nor did he, despite the fact that during the later part of his hospitalization he was on full house diet. This remission of symptoms continued for 3 months after discharge before ulcer symptoms returned. In August 1929, while under active ulcer treatment, the patient was

sent to the hospital with a perforated duodenal ulcer. Surgical intervention was successful but, following this operation, the events of the preceding year were duplicated; that is, the patient was symptom-free for several months, since which time he has been one of our intractable chronic ulcer patients.

Such experiences, together with the transitory character of relief by gastrojejunostomy for the cure of ulcer, make one wonder whether surgical results are due to surgery or to the rest incident to hospitalization and convalescence. Certainly, while in no way intending to contradict the present view of pathologists, that local vascular disturbance is the *modus operandi* of ulcer formation, it is the opinion of the writer—perhaps not a scientific one, but the result of observations during some 18 years of general practice—that the neurogenic element is of predominant importance. Whether its control will be by such surgery as was suggested by Crile, in his adrenal sympathectomy, or by a better understanding of endocrinology and its relationship to the autonomic nervous system, is for the future to demonstrate.

Diagnosis of peptic ulcer in the average case is not difficult. The patient's complaints are so stereotyped that history-taking does not progress far before the ultimate diagnosis can be forecast. (In passing, one should, however, allude to the occasional patient who, without previous dyspeptic symptoms, is ushered into ulcer recognition by a hemorrhage.) The chief difficulty rests in differentiation from the reflex hyperchlorhydria associated with gall-bladder disease, and from the various forms of gastric neurosis. Analysis of gastric contents, while it should be a routine measure, does not yield conclusive data. The presence of blood in gastric contents, given such an important place by some authorities, in the opinion of the writer is of no great value, because in hyperchlorhydria this is nearly a constant finding, due, probably, to minor abrasions of the congested mucosa by the metallic tip of the duodenal tube. The roentgenologist's report, when positive, is conclusive evidence, but negative x-ray findings do not necessarily preclude the possibility of ulcer. Diagnosis is

finally made as a result of x-ray findings, analysis of gastric contents with the Ewald technic and, especially, carefully taken history. It may be laid down as a safe rule that, when in doubt, having excluded gall-bladder disease, treat as ulcer.

Having established the diagnosis, all foci of infection should be removed, for, while it taxes credulity to hold focal infection as an important etiologic factor in peptic ulcer, yet focal infection may mimic any disease or symptom complex; it should, therefore, be dealt with routinely in this condition as in many others.

Approach to treatment should be made by way of an exhaustive inquiry into the patient's background. This investigation should include: record of neurotic manifestations, such as: attacks of hysteria; psychoneurosis; emotional abnormalities; or any other data which may assist in determining the degree of nervous instability; type of occupation, particularly with regard to amount of mental strain involved; family life, whether harmonious or full of friction; financial state and degree of worry connected therewith; amount of extra responsibility in outside interests, such as club activities, social entanglements, or church work; and personal habits with regard to exercise, hours of sleep, periods of relaxation, and use of alcohol and tobacco.

At the outset, the patient must be impressed with the seriousness of the condition, but considerable tact should be employed in avoiding instillation of too great a sense of fear. He should be made to understand that treatment is to continue for at least 2 years, and that during that time the physician will have much to say about most of the details of his daily life. While normal, healthy diversion, both physical and mental, is much to be desired, it will be necessary to abandon the cares and responsibilities of all outside interests. Ample time must be allotted for rest and relaxation. Late nights should be limited and excitement made taboo. When vacations are planned, rest and quiet are most important, and a boat trip is ideal. During the entire course of treatment, the necessity for complete coöperation must be stressed, and frankness with the

physician about every detail of life, mental and physical, should be encouraged.

As for medication, the alkaline treatment outlined by Sippy has never been greatly improved upon, and it continues to be the basis of all other systems; though there are numerous modifications. When economically possible, it is advisable to institute treatment by following Sippy's first 10-day regimen of hourly feeding, alternating 3 oz. milk and cream with sizeable doses of alkali. During this period the patient should be in bed or, at least, physically at rest. When, because of occupation, this treatment cannot be strictly adhered to, the closest possible approach must suffice. Treatment thus vigorously begun results in prompt alleviation of all symptoms and establishes in the patient a feeling of confidence. Following, and sometimes during, this period, suitable additions are made to the diet, such as raw or very soft boiled eggs, cooked cereals and creamed soups. Without going into minute detail, our plan for gradual enlargement of diet closely follows the Sippy system. The ultimate test of a food is that it shall reach the stomach in a soft, non-irritating physical condition. The alkali of choice is a powder of magnesium carbonate, calcium carbonate and bismuth sub-carbonate, the proportions of the ingredients and size of dose depending upon the needs of the individual. Sodium bicarbonate is rarely used and then only for those few who are difficult of alkalization. By avoiding sodium bicarbonate, one is free to over-neutralize gastric acidity without fear of resultant alkalosis. For accurate control of acid neutralization, some gastro-enterologists advocate frequent use of the duodenal tube. We feel that this is an unnecessary burden upon the patient, and that its results are not altogether reliable. Symptoms of acidity are promptly noticed by the patient (if there is pain or even epigastric distress at any time during the day, neutralization has not been effective), and by using the unassimilable alkalis above-mentioned, one may aim at over-neutralization with a flat taste in the mouth and poor appetite as the only possible ill effects. As adjuncts to the alkalis, belladonna or atropine, in fairly large doses, may be routinely used during the entire medication per-

iod, and sedatives like barbitol or phenol-barbitol, in small doses, are almost always of benefit. Both medicinal and dietary measures are strictly and uninterruptedly maintained throughout the entire first year of treatment. During the second year, diet remains unchanged but drugs are cautiously reduced and, if possible, ultimately withdrawn.

Surgery, we believe, is now universally discountenanced as a means of curing simple, uncomplicated peptic ulcer. At least, thorough medical management should always be attempted first. In our experience, the results of surgery have been unsatisfactory and often disastrous. True, there is always a remission of symptoms following gastrojejunostomy, but the majority of patients sooner or later return with all their old complaints. Indeed, a relatively high percentage of our chronic intractable patients are those upon whom some sort of surgery has been performed. Accordingly, we conclude that surgery must be held in reserve for complicated cases and emergencies such as pylorospasm uncontrollable by drugs, cicatricial pyloric stenosis, and perforation. Crile's renal sympathectomy, previously alluded to, gives some promise that the surgeon may again dominate the field, but this is a procedure, the value of which only the future will disclose.

The foregoing seeming arraignment of surgical measures for the cure of peptic ulcer should not be taken as a criticism of the surgeon, nor as implying that medical treatment is 100% certain in its results. Our intention is to stress the fact that surgery does not cure the ulcer or ulcer tendency, and more particularly, that symptomatology following surgery is infinitely more difficult of control than medical failure. We must admit that, in spite of our best efforts, in a high percentage of cases the outcome of medical treatment is far from satisfactory. But, while there are many recurrences and some complete failures, we do register some cures.

It will be well worth while to consider some of the reasons for our failures. Perhaps the commonest cause is lack of coöperation on the part of the patient or carelessness in living strictly in accordance with the rules. When

one recalls that in the average case all symptoms promptly disappear on vigorously applied treatment, it can be appreciated that much persuasive power on the part of the physician, and complete confidence and trust in him, are imperative for maintenance of a rigid system of medication, diet and living over a period of 24 months. Slips and vacations from treatment tend to prolong the course interminably. Just as in diabetes, it is often necessary for the patient to learn by unhappy experience that when he cheats, he is hurting no one but himself.

Another reason for poor results is inadequate treatment arising from economic difficulties, occurring when financial considerations and the nature of occupation interfere with application of idealistic measures. For example, the man with a large family, no monetary reserve, a small income and laborious work, is in no position to adhere strictly to the system demanded. Lack of intelligence of the patient, rendering proper understanding of his condition hopeless and, consequently, any co-operation out of the question, is one of the greatest difficulties. This type of an individual, more than any other, most often tempts the physician to turn to surgery for help.

Failure on the part of the physician to appreciate fully the importance of the nervous system is another factor responsible for poor results. To follow the stereotyped system, with printed rules, printed diet charts, and printed prescriptions, and neglect to correct those disturbing elements in the patient's life which act as nervous irritants, and to apply a little elementary psychology, almost inevitably leads to failure.

Refusal of the patient to eliminate alcohol and reduce the use of tobacco to a reasonable degree is another cause that militates against satisfactory results. From the standpoint of medication, insufficient or incomplete alkalization is a common cause of failure. There is no standard dose of alkali suitable for all ulcer patients. Some require enormous doses. One patient came to me several years ago with a history of having consulted many physicians. He complained of severe symptoms, without remission, over a period of 18 years. After

several visits, it was apparent that under-alkalization was the difficulty. As a therapeutic test 2 oz. alkali were given in the office. In a short time the result was striking, and can best be described in the patient's own words: "My stomach has not felt so comfortable for years." During the early stage of treatment, this patient's routine dose of alkali was 1 oz. The results of analysis of stomach contents do not give an accurate idea of the amount of alkali required for neutralization. When prompt relief of symptomatology is not obtained, if for no other reason than as a therapeutic test, alkalis should be pushed to enormous dosage if necessary.

In conclusion, let us summarize those points which it has been our effort to stress, as being of greatest importance in the management of peptic ulcer: (1) Desirability of having control of the case in the hands of the family physician. (2) Necessity for complete and conscientious coöperation by the patients. (3) Importance of the vegetative nervous system in the peptic ulcer complex, and necessity for elimination of all mentally and emotionally disturbing elements from the patient's life. (4) Routine control and management should extend over a period of not less than 2 years. (5) The value of surgery, for the present, is chiefly in affording a means of meeting certain emergencies.

DISCUSSION

Dr. R. L. Sharp (Camden): Dr. Lewis has given us his usual conservative sound paper.

Various antispasmodics and substances which coat the ulcer, or are supposed to coat the ulcer, or which allay stomach contractions, come and go, but the basic principles in the management of peptic ulcer remain as Dr. Lewis has quoted them this morning.

My first love being gastro-enterology, I might differ with him somewhat as to where the final management of these cases should lie, but it has been interesting to me to note the great number of articles in the literature whereby these cases are handled in an ambulatory fashion. Back a few years we used to think that when a peptic ulcer came in, it was necessary to hospitalize that patient for 2 to 3 weeks or a month and then keep him at home at rest for a month longer, and then get him back to work in a semi-invalid fashion. Possibly it is due to the economic depression in the past few years, but I can't get my patients to go to the hospital with peptic ulcer anyhow, and when you do put one in, he worries so much about finances that I think the worry more than overbalances the effect from hospital rest.

I don't know whether the so-called neurogenic factor plays any part in the formation of ulcer,

but I do know that nervous upsets will certainly flare up a quiescent ulcer and I do know that there is certainly a type of individual in which you may look for an ulcer.

It was my privilege at Presbyterian Hospital in Philadelphia to have under my care 4 members from the same family with peptic ulcer, the youngest being a boy of 11, a highly nervous youngster, whose first symptom was a gross hemorrhage. His father and 2 uncles, all the living male members of that family, subsequently came in with peptic ulcers proved by x-rays.

Dr. Lewis spoke of Crile's work. It is quite interesting, but I confess that I haven't had the temerity to recommend partial thyroidectomy or adrenal sympathectomy on even the most intractable case yet. I think it may have some possibilities.

Dr. Lewis said that the diagnosis of ulcer was easy; in the ordinary garden variety I think it is, but Dr. Lewis, and Dr. Stewart before him, stressed the importance of careful examination and careful history taking. I think if you dig in deep enough, you will have no trouble with the diagnosis, but the average mistake that most of us make is that we don't take a detailed history and we don't spend time enough with these cases.

Dr. Lewis also said, "When in doubt (ruling out gall-bladder disease) treat the case as an ulcer." I think that is perfectly sound, especially is a smooth diet sound, and moderate doses of alkali, if your acidity is high.

I do not believe, either, that repeated gastric analyses are necessary. This may not be quite in accordance with Hoyle, but I don't believe that accurate neutralization is altogether necessary after the first few weeks. I think that whether you are particularly accurate in neutralizing every bit of acid that is there, or whether you get a little too much alkali, makes very little difference.

Dr. Lewis spoke about the presence of blood being so common with tube studies, and I suppose he means by that, occult blood or a very moderate amount of blood. Of course, with any gross amount of blood you would be on the alert.

Constipation is a commonly occurring factor in these cases and sometimes the addition of some magnesium oxide instead of the carbonate, and some kaolin will benefit.

I think that the failure of surgery has largely been due to the fact that these patients haven't been followed after operation. Especially was that true back a few years ago when the average patient that went into the hospital and had a gastro-enterostomy was instructed, "You can go home and eat anything". He did and he came back in 3 or 4 years with recurrence of symptoms or a jejunal ulcer.

If all of them, after they had their operation, whether for a perforated ulcer or for some pyloric stenosis, or pyloric spasm, or whatnot, followed a medical régime for 6 or 8 months or 2 years after the operation, we would see less percentage of failure in surgical cases.

Just before Dr. Lewis got up, I spoke to him about ulcer in the cancer age and he said that due to lack of time he would purposely omit that. If those cases of short history do not respond readily to medical régime, they should have immediate surgical intervention.

Dr. John W. Gray (Newark): As a proved duodenal ulcer case I have learned several things during the past 3 years that are not found in books. There is probably no condition in which individual

requirements deserve more consideration than in the convalescent and after treatment of peptic ulcer. In Dr. Lewis' very comprehensive practical résumé of this subject I like his choice of the term "management". I should like to ask Dr. Lewis' opinion of Dr. Folgeson's mucin treatment. It seems rational that if the ulcerated area can be protected without changing the reaction of the gastric juices, digestion may proceed more naturally and the general resistance of the patient will be improved. Because of favorable personal experience I heartily endorse mucin therapy.

Dr. Thomas K. Lewis (Closing): Bearing out what Dr. Sharp alluded to in surgery, in my experience in the past with patients who underwent surgery, the patients were very seldom referred back to me for subsequent treatment, but were told that they might go home and eat as they liked, and I think possibly therein lies one of the reasons for poor results.

As for the use of mucin, as the Doctor mentioned, it is a vile, nauseating dose, and objectionable to most patients. While it coats the mucosa, it does not neutralize acidity.

RECENT ADVANCES IN SURGERY

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INTRODUCTION

In reviewing the large amount of literature which I deemed it necessary to review, in the preparation of this paper, I found that Bal-four, La Roque, and Davis had recently contributed articles on similar subjects. It being obviously impossible to include the entire field of surgery in a paper of this type, I will dwell only on some outstanding advances, and make reference to the original sources for more complete data. My own contribution will be a mention of 3 operations, to be reported in detail at a later date, the bulk of the paper being a summary of the newer procedures which have been most generally accepted by the profession, or which personal experience has shown to give the most satisfactory results.

It is now a generally accepted fact that, with our more careful selection of cases, modern pre- and post-operative treatment, choice of anesthetic and technic, there is only a small percentage of danger in the average operation, performed by a competent surgeon in a class-A hospital. Unless the operation was performed for a severe acute condition or an

extensive malignancy, a fatality is a calamity that should be thoroughly investigated by the Medical Board of the hospital in which it occurred, to ascertain the exact cause and to prevent a repetition.

I would like to repeat here the words that I used in the paper, "When Not to Operate", read before this Society in 1921: "An ill-timed, incomplete or unnecessary surgical procedure is often a serious matter for the patient and a source of great future annoyance to the surgeon."

ANESTHESIA

The proper choice of an anesthetic, particularly in a desperate or complicated situation, is of the utmost importance. Scott has admirably summarized the advantages and disadvantages of the various agents.

Ether is still the safest general anesthetic and gives the greatest amount of relaxation, but it has the disadvantage of producing marked metabolic changes and some pulmonary irritation.

Chloroform, in this climate, is now seldom used except in the later stages of labor, its dangers when used for deep or prolonged anesthesia having been long since established.

Nitrous oxide and ethylene give less complete relaxation, but have the advantage of rapid recovery, with a minimum of metabolic changes and pulmonary irritation.

Spinal anesthesia gives relaxation but is not completely controllable, and is accompanied by a fall of blood pressure and, sometimes, nerve injury. I have seen 2 cases in which there was nerve injury and have seen fatalities, apparently from respiratory failure. It has its greatest field of usefulness in genito-urinary, abdominal and lower extremity work, and in cases where an inhalation anesthetic would be contra-indicated because of pulmonary or other complications. Our own Dr. Pitkin has developed the method of injecting spinocaine into the lumbar canal and then tilting the table to the proper Trendelenburg position, to get the desired anesthesia of the area to be operated upon. Spinocaine, being of lower specific gravity than the spinal fluid, can be floated as a bubble to the desired place.

Local anesthesia gives a minimum of meta-

bolic change, but has time and space limitations. Percain, in 1:1000 solution, is said to give a longer period of anesthesia than novocaine, and to be safer because individual susceptibility is practically negligible.

Sodium amytal, intravenously, is now seldom used for complete anesthesia, as it is dangerous in large doses and is uncontrollable. Given by mouth, in small doses, it is useful in apprehensive patients, both before and after operation. It is valuable in treatment of tetanus, strychnine poisoning, delirium tremens, drug addiction, pernicious vomiting, hic-cough, and pain unrelieved by morphine.

Avertin by rectum, introduced in Germany in 1927, is fairly safe in a dose of 0.1 gm. per kilo. body weight, but must be supplemented by nitrous oxide and oxygen. This anesthetic, in full narcotic dose, is not as free from danger as at first thought and a number of deaths have been reported from its use.

Local, regional, and caudal anesthetics have gained friends in the past decade. The most outstanding class of cases in which local infiltration anesthesia is extensively used includes toxic goiters, so successfully treated by our President, Dr. John F. Hagerty, and incarcerated hernias in the aged.

Ether, as previously stated, is still the safest standard general anesthetic for general use, and when used in conjunction with nitrous oxide for induction, gives the most uniformly satisfactory results. A thorough lung ventilation with carbon dioxide and oxygen, at completion of an inhalation anesthesia, is now being generally used, and has been shown to greatly diminish the danger of atelectasis and pulmonary complications.

STERILIZATION, WOUNDS, INFECTIONS, BURNS, ETC.

Recent investigation has shown that infections due to inefficient hospital sterilization occur within 48 hours, and in such cases the sterilizers should be checked, operating room force carefully examined for local and respiratory infections, and suture material cultured.

The treatment of wounds has been revolutionized by the World War. Débridement of dirty wounds is now widely practiced, par-

ticularly in wounds that have not been treated within the first 30 minutes after reception. Inside of this time, mechanical cleansing and antiseptics are usually sufficient. Dakin's solution is particularly efficacious in large abscesses and in preparing a wound for secondary closure. The difficulty in obtaining the proper solution, and time-consuming technic required, tend to lessen its more extensive use. When using it, the skin must be protected with vaseline gauze, changed every second day, the solution being delivered by tubes and puddled in the wound, the excess being absorbed by dressings which should be frequently changed.

Tetanus antitoxin, combined with gas gangrene serum, for prophylaxis, has recently been marketed and is particularly advised in compound fractures and deep-muscle or dirty wounds.

Treatment of local infections has taken a more conservative trend. It is now customary to await a definite localization of pus before making incisions, particularly in face infections. Vaccines, serums, rest, a diet low in carbohydrates, and wet dressings are indicated, pending a localization of the infection.

The Orr treatment of osteomyelitis and compound fractures is now very successfully applied, and has many advantages over former procedures, particularly in the comfort of the patient, infrequency of dressings, and time consumed in the hospital. It consists of a free opening into the bone, removal of infected area, swabbing with tr. iodine and alcohol, packing with vaseline gauze, and application of splints. The wound is untouched for 4-6 weeks in spite of the odor, provided there is no rise of temperature. I have seen this treatment successfully used by our own Drs. J. K. Adams and J. E. Toye. The maggot treatment of osteomyelitis resulted from the observations of Dr. W. S. Baer during the World War, and is worthy of consideration in chronic cases which have resisted ordinary methods, but is not as yet extensively employed. In going over the literature on osteomyelitis, I have come across cases with discharging sinuses, which have existed for as long as 60 years, during which time the patient has been able to work in comparative comfort.

The treatment of burns by spraying every hour for the first 2 days with a 2% Tannic acid solution has recently come into vogue. It has the advantage of coagulating the damaged tissues and secretions, and diminishing absorption from the toxic burned tissue. The area is left exposed to the air, and dry heat is applied. It is particularly advised in superficial burns involving a limited area, the deeper, extensive body-burn cases doing better with wet dressings or frequent tubbing. Measures to combat shock and supplying fluids are most essential.

Erysipelas has now become one of our most easily controlled infections by the use of serum, vaccines or radiation.

The treatment of tetanus, now so seldom encountered, is with enormous doses of antitoxin—100,000 units as initial dose, and 20,000 units daily for 3-5 days thereafter, by the intravenous or intramuscular route. The necessity for and value of giving it intraspinally has been seriously questioned.

When amputation of one limb is necessary for diabetic gangrene or endarteritis, the circular method has been found most desirable, as all of the tissues in the stump are most surely supplied with blood. The skin is first incised and allowed to retract, the muscles sectioned at the level of the retracted skin and the bone at the level of the retracted muscle, each section being at a higher level than the preceding. Bleeding is controlled and operation completed by a few stitches through the deep aponeurosis and in the skin, without drainage. In leg amputations just below the knee, artificial limb-makers are requesting that surgeons remove the head of the fibula, as it is of no use and invariably gives pain and, later, trouble.

Arterial emboli manifest themselves by sudden, severe pain in an extremity, with blanching and lack of pulsation below the lesion. They are treated by incision, removal of the clot, and suture. It is obviously essential that bleeding be obtained from the upper end of the vessel. A clot has been successfully removed from the abdominal aorta by Bravermann.

In cases of suspected internal hemorrhage, a hemoglobin estimation made every 30 min-

utes is of great assistance. This was brought to my attention several years ago by Dr. Charles E. Teeter, and I have since used it with considerable satisfaction. In cases of hemorrhage not amenable to direct surgery, or in anticipated bleeding, I have found nothing better than 30 c.c. 33% sodium citrate solution intramuscularly, recommended by Lillenthal.

Aneurysm of the thoracic aorta is said to be somewhat relieved by anastomosing the internal jugular vein to the carotid artery, thereby decreasing arterial pressure.

It has been my privilege for a number of years to observe the excellent work our President has been doing in toxic goiter. It is recommended that these patients submit to early operation, thereby sparing the heart and nervous system undue stimulation. A preliminary rest period, intelligent use of Lugol's solution, local anesthesia, extreme gentleness and removal of practically the entire gland, are the essentials for success and a low operative mortality.

Pilonidal sinus has been a problem to surgeons for years, because of the difficulty of completely removing the entire tract. It is advised, in operating on these patients, to inject methylene-blue solution under pressure and then excise widely down to the bone.

Painful breasts, so often diagnosed as chronic mastitis, are generally caused by endocrine dysfunction and respond readily to ovarian residue administered by mouth.

Operative fusion for tuberculosis of the spine is now established as the most satisfactory treatment for this class of patient.

OPERATIVE TECHNIC

Tincture of iodine, in $\frac{1}{2}$ strength, applied in 2 coats, is the most uniformly satisfactory disinfectant for pre-operative sterilization of skin. It is preceded by an ether scrub, and the excess of iodine around the contemplated skin incision is removed with alcohol. The main precaution to be observed is to make sure that no iodine has run down the sides or back of the patient, and to remove all excess iodine with alcohol at the completion of the operation.

After thoroughly scrubbing the hands and

immersing in 95% alcohol, it is advisable next to don the gown and lastly the gloves.

Double operating teams in a single case are indicated in extensive traumatic cases and where grafts from distal parts are being used, one team preparing the area and the other cutting the graft.

The endothermy knife is a valuable aid. It has the singular advantage of giving quick hemostasis. Instead of tying small bleeders, a mere touch of the hemostat with the knife is sufficient. It is particularly valuable in excision of local malignancies, brain tumors and carbuncles. The only drawback is that the wounds require longer for firm union, and sutures should therefore be left *in situ* 2 or 3 days longer than when the cold scalpel is used.

A valuable stitch for skin and superficial fascial closure has come into vogue and has been credited to various men, but I believe Edmunds originated it. Campbell showed it to me and called it the subway or submarine stitch. Only one stitch of silkworm gut is necessary for each inch of the incision. A long straight needle is used and is first passed from side to side through the bare skin edges. The suture is now lifted high and needle reinserted deeply through the skin and superficial fascia, about 1 inch from the edge of the incision, coming out on the side where the stitch was begun, but an inch outside of same. Upon tying this stitch, an accurate skin approximation is obtained, also an approximation of the subcuticular tissue. Removal on the seventh day leaves a fine scar. It has the advantage that serum or other drainage may be freely evacuated, if necessary, without reopening the entire wound.

PRE-OPERATIVE AND POST-OPERATIVE TREATMENT. COMPLICATIONS

In the pre-operative diagnosis of a suspected acute surgical condition, it is essential that a careful urine analysis and blood count be made. A high poly count is most important in diagnosis of a pus case, keeping in mind that a case of walled-off abscess may show no leukocytosis. In a white count of over 25,000, pneumonia should be suspected, while a blood culture is the most valuable test in diagnosis of an early case of typhoid.

Dr. S. A. Goldberg tells me that the most useful test for liver damage is a urobilinogen test of the urine, while kidney function tests have long been satisfactorily used as an index of damage to those organs.

In jaundice cases, or other conditions in which hemorrhage is feared during or after operation, it is wise to increase the coagulability of the blood by use of sodium citrate, thromboplastin, or some other active agent, injected pre-operatively.

In kidney work, intravenous urography, using some iodine preparation, as uroselectan, gives satisfactory pictures of the urinary tract in about 75% of cases, thereby making cystoscopy, with its discomforts, less frequently necessary. Except in thyroid surgery, there is no class of cases where careful pre-operative preparation and study is more essential than genito-urinary surgery on patients past middle age.

It is essential that the patient have a good rest on the night preceding operation, and to this end many surgeons are now prescribing luminal in 2-3 gr. doses.

Morphine, one of our most valuable drugs, is now used rather freely, by hypo, both before and after operation. It should seldom be used before diagnosis is made, as it may disguise the symptoms.

Fluids are essential both before and after any major surgical procedure, and may be given by rectum or by hypodermoclysis. They promote secretion and mitigate the metabolic changes incident to the anesthetic and operation. Six ounces of water by rectum every 3 hours is easily absorbed and adds greatly to the comfort of the post-operative patient.

Shock is often helped by glucose solution with insulin intravenously, which supplies fluid volume and nourishment.

Experience has shown that hypertension *per se* is not a serious barrier to a necessary surgical procedure. The average cardiac patient also stands an anesthetic well.

Blood transfusions, now so readily performed after direct matching, is of particular value in severe shock, hemorrhage, cachexia, pernicious anemia, and purpura. It is of questionable value in septicemia, unless the donor contributes immunized blood. Transfusions

are not being used as freely as formerly, as glucose and saline intravenously are usually sufficient to tide the patient over a critical stage unless same has been due to actual loss of a large amount of blood.

The diabetic patient should have appropriate dietary and insulin treatment, both pre- and post-operatively.

Glucose solution, intravenously or by hypodermoclysis, is advised, post-operatively, in the more serious cases, and it is credited with preventing nausea, vomiting, acidosis, shock and intestinal atony, and acting as a supportive in peritonitis and the toxemia of obstruction.

Post-operative parotitis is now seldom seen, due to the fact that more care is used in the toilet of the mouth and more fluids are supplied. At the Mayo Clinic, they use radium applications early in these cases.

Pulmonary complications are reduced to a minimum by routine administration of a few inhalations of CO₂ and oxygen at the completion of the anesthesia. This causes deep breathing and hyperventilation of the lungs. I have found that post-operative pulmonary emboli occur most frequently in the second or third week following operations for ventral hernia on stout patients over 50 years of age. Interns and nurses are warned to be particularly watchful of this type of patients.

Post-operative thrombosis may be caused by lymphatic swelling, obstruction from prolonged Fowler position, too tight an abdominal bandage, or lack of fluids. It is an annoying condition for which we have no new treatment.

Septicemia due to *Streptococcus hemolyticus* should be treated by large doses of polyvalent streptococcus serum, combined with surgical treatment of any foci which can be found. Septicemia due to *Bacillus perfringens* is characterized by hemorrhages into various organs and is as yet a hopeless condition.

Persistent post-operative hiccough is often amenable to repeated deep narcotic doses of CO₂ and oxygen. If not relieved, a fluoroscopy should be made to see which side is involved, and the phrenic nerve of that side exposed under local anesthesia, surrounded by a liga-

ture, and crushed or avulsed, depending upon the reaction.

A subphrenic abscess should be suspected in any patient not progressing satisfactorily following an abdominal operation. The treatment is surgical drainage, using the approach best adopted to the location of the pus.

The management of peritonitis continues to be a problem, and after our initial surgical procedure, with thorough drainage, we have to rely on a few recently defined rules in an attempt to carry the patient until he has successfully combated the infection. In these cases a low white count means poor resistance. The first rule is *not* to purge the patient, regardless of the amount of distention. Low enemas and a rectal tube may be used. Morphine in small doses is indicated. Make an endeavor to short-circuit the gastro-intestinal tract, by inserting a Levine tube through the nostril into the stomach or upper duodenum and leave it in place also, using a Hendon tube in a vein of the arm, as pointed out by Dr. G. N. J. Sommer, carry out a continuous drip clysis through same, with a 10% dextrose in normal saline, allowing as much as 5000 c.c. to flow in during 24 hours. This supplies fluid, prevents vomiting and sustains life during the critical stage. Some European clinics have reported brilliant results from use of gas gangrene serum in these cases, the work of Jennings having shown that *B. Welchii* predominate in the lumen of the bowel. Reports from surgeons in this country are not so glowing. I have lost 2 patients and had 1 recover following its use, in conjunction with other methods in 3 desperate cases. Pneumococcus peritonitis may be diagnosed as such by vaginal smears, diarrhea, herpes, cyanosis, dyspnea, high leukocyte count or fluid obtained by puncture. In these cases it is best not to operate at once, but to institute supportive treatment and await a definite encapsulation of the pus.

Post-operative ileus is generally relieved by introduction of a Levine tube, and by supplying fluids by mouth and by clysis. Splanchnic anesthesia has been suggested in an endeavor to paralyze the inhibitory nerves. The injections are made on either side of the vertebral

column, under the twelfth rib and above the first lumbar spine.

Malignancy is still an unsolved mystery, the recent advances in treatment being limited to radium cures in carcinoma of the cervix and superficial lesions, development and application of radium seeds, use of the electric knife, and standardization of deep x-ray therapy as an adjunct to surgery. A combination of operative excision and implantation of radium seeds, plus deep x-ray therapy, is now being used in carcinoma of the breast, in an attempt to lower the mortality rate, which is still high.

Sarcoma has such a high mortality that La Roque states that cases cured by surgery are probably not sarcoma at all. However, about 25% of cures have been reported in sarcoma of bones near or below the knee, when treated by high amputation.

HEAD INJURIES, FRACTURES, JOINTS

The conservative treatment of head injuries is one of the outstanding advances of the past decade. A skull fracture is of no particular significance *per se*, the degree of damage to the brain being the paramount issue, and such damage can be present without a demonstrable fracture. I was particularly impressed by the recent remarks of Foster Kennedy, that all cases of head injury have an immediate lumbar puncture, looking for blood and increase in the spinal fluid pressure. Some ophthalmoscopic evidence will be found in about 1/3 of the cases of brain injury and Bell's palsy will develop in about 10% a week later, due to local edema involving the seventh nerve. Only compound fractures requiring débridement, and cases of middle meningeal hemorrhage, should be operated. Uncomplicated depressions should not be elevated for several days. Kennedy's treatment is, lumbar puncture, immediate reduction of pressure to 15 mm. mercury if possible, 100-500 c.c. 50% glucose solution intravenously 3 times a day, 7½ gr. caffeine sod. benzoate q. 4 h., and elevation of patient to an angle of 45°. Head injuries are more serious as age advances, the length of the period of unconsciousness bearing a distinct ratio to degree of brain injury. Patients unconscious for over 3 hours, with a bloody

spinal fluid, are most serious. Vomiting after recovering consciousness is typical in cases of brain injury.

Injuries of the cervical spine involving the cord are fatal, as are also lower spinal injuries where the cord is crushed or cut. Laminectomy is seldom followed by any marked improvement, even though bone fragments and blood clots be removed. Attempts should, however, be made to relieve pressure on the cord and restore anatomic relations by traction and the application of plaster with hyperextension of the spine.

Great advances have been made in localization and removal of cord tumors, and I have been particularly impressed by personal observation of the work of Adson in this field.

Considerable progress has been made in the standardization of treatment of the more common fractures. This branch of surgery should be handled by men especially trained in the work and not by the general surgeon, as it requires special technic and care that the average general surgeon in our larger hospitals does not give. It was a great relief to me to have fracture services established in 3 of our local hospitals.

Compound fractures should receive the same prompt surgical attention as accorded a penetrating abdominal wound. Correct anatomic position is essential, and the Steinman pin is becoming more generally used with that end in view. When plates are used they should be removed in about 28 days. No union is usually due to imperfect apposition or improper mobilization, and satisfactorily treated by bone grafts, or, as Beck has shown, by making multiple fine drill holes at the ends of the fragments.

Favorable reports have been made by Berg in the treatment of arthritis (both acute and chronic), gonorrheal arthritis, and tubercular synovitis, by aspiration and injection of sterile air to about 50 mm. mercury pressure. This keeps the joint surfaces apart for 3-7 days, after which it may be necessary to repeat the procedure.

Pre-patellar bursitis has been satisfactorily treated by Carp, by aspiration and injection of $\frac{1}{2}$ strength tincture of iodine, repeated if necessary.

ABDOMEN

Perforating wounds of the abdomen require immediate operation with large incisions. In suspected bowel injury, the entire small bowel should be eviscerated and a careful search made.

Little has been added to our knowledge and treatment of gastric and duodenal ulcers, although extensive resections have become the vogue in some clinics. Experimental work by Klein has shown that section of the anterior trunk of the vagus near the cardia is helpful in controlling cases of persistent hyperacidity. Statistics show that about 1 in 5 ulcer cases require surgical intervention. My own rules for handling cases of gastric and duodenal ulcer, formulated after considerable experience and investigation, are as follows:

- (1) Eliminate foci of infection and do a Wassermann before considering surgical intervention.
- (2) Do not operate in face of acute hemorrhage unless same is repeated.
- (3) Do a quick simple closure and drainage in acute rupture.
- (4) Separate adhesions, destroy the ulcer if possible, and do a post gastro-enterostomy or pyloroplasty in the average interval case.
- (5) Resect only in cases of recurrence with high acidity.
- (6) Look for and deal with any associated pathology in the gall-bladder, appendix and other organs at time of operation.

In diagnosing abdominal tumors, it is often of value to palpate the abdomen with the patient lying face downward on the table, thereby getting a better relaxation. Tumors in the hepatic and splenic flexures are most readily palpated in the erect position. A tumor of the large bowel is generally carcinomatous; hyperplastic tuberculosis, actinomycosis and benign tumors being rare. Barium enema pictures are of the greatest value in diagnosis. Carcinoma should be suspected in all patients of cancer age, with mucous diarrhea, alternating with constipation, local pain, anemia, or obstruction. The operative mortality has been markedly reduced by pre-operative vaccination against infection, using a streptococcus colon mixture. The Mikulicz operation, recently criticized by Balfour, preliminary short circuiting of the bowel by anastomosing above

and below the tumor, or a preliminary ileostomy or colostomy, have greatly reduced mortality in resection of the bowel.

In rectal tumors which can be visualized, it is advised to resect a piece with the cautery knife for biopsy before any treatment is instituted; the colloid and melanotic carcinomas being left alone. The combined abdominoperineal operation for carcinoma of the rectum offers best chance for cure.

Gall-bladder and bile duct surgery has been greatly aided by the advances made in cholecystography. The dye may be given by oral or intravenous route. This diagnostic procedure, accompanied by non-surgical duodenal drainage, with stimulation and examination of the specimens obtained at intervals, give a fairly accurate picture of the pathology. Operations on patients with acute cholecystitis are attended by a high mortality, and conservative surgeons now treat most of these patients in an expectant manner, attempting to defer operation until the acute symptoms have subsided.

Cholecystectomy, with or without duct drainage, is now generally practiced when pathology is demonstrated, the question of leaving a piece of rubber tissue to the stump for drainage being a debated question. I am convinced that it adds some margin of safety. According to Judd and Marshall, it is always possible to remove stones in the ampulla through an incision in the common duct, thereby obviating an incision into the duodenum, with its added risk.

Cholecystogastrostomy is a simple operation that gives excellent results in cases of common duct stricture, obscure jaundice, carcinoma of the head of the pancreas and, sometimes, acute pancreatitis. It may be followed by mild infections of the bile passages and liver.

Abscess of the right lobe of the liver, if it can be demonstrated by needle puncture, may be aspirated and injected with iodized oil, and an x-ray taken in 2 planes. This will give the location and size and point to the best avenue of approach for drainage.

Acute pancreatitis may be diagnosed by Elman's test for increase in blood amylase. There

is some question whether these patients should be treated by immediate operation, or handled more conservatively, as is advised in acute cholecystitis and salpingitis.

Perforated gangrenous appendicitis still shows a high mortality, often due to delay in diagnosis or to purging. There is a tendency to close the wound too tightly and not provide for adequate drainage. In the paragraph on peritonitis, I have outlined the treatment of this complication.

THORACIC SURGERY

The development of bronchoscopy under the leadership of Jackson has greatly aided in diagnosis and treatment of pulmonary conditions.

Wounds of the chest are now treated conservatively, in contradistinction to abdominal wounds. A large percentage of bullet and stab wounds will mend without intervention. Hemothorax, however, should always be watched for and treated by early aspiration and injection of air.

No operation should be performed on any empyema patient unless the opposite side is first clear, even though repeated aspirations of the affected side be necessary. All empyema operations should be done under local infiltration anesthesia, thereby making the operative mortality practically nil. Opening and packing the cavity with bismuth iodized gauze is reported to be satisfactory for chronic empyema cavities.

Many cases of lung abscess are now successfully treated by bronchoscopy and postural drainage. Cases attended with spirochetal infection should be treated by neosalvarsan intravenously. Autogenous vaccines, phrenectomy and artificial pneumothorax are credited with cures. In cases not relieved by any of the above procedures, surgical drainage should be instituted.

Pulmonary emboli have been successfully removed by the modified Trendelenburg operation, but the operative mortality is high.

Reanimation of the heart should be attempted in all cases of cardiac failure during an operation. Massage is done through the chest wall or diaphragm, if there is an abdominal incision, and ephedrine should be injected

into the right auricle through the third intercostal space at the right of the sternum, using a slender 4-inch needle.

In selected cases of pulmonary tuberculosis, phrenectomy on one side is used to paralyze the diaphragm, allowing it to ascend and reduce the lung volume and in many cases this may render unnecessary the more radical operation of thoracoplasty.

PLASTIC SURGERY, SKIN GRAFTING, VARICOSE VEINS, HERNIA

Plastic surgery, particularly that involving the nose and face, requires a highly specialized technic for its successful performance.

Pendulous breasts are now successfully suspended from the pectoral fascia with multiple stitches, a semilunar, inconspicuous incision being made in the fold below the gland. Some surgeons incise around and re-implant the nipple and areola at a higher skin level. To diminish the size of the breast, a wedge-shaped section of the gland, with the apex at the areola, may be removed, or excessive fat and glandular tissue may be removed from around the periphery.

In skin grafting with whole thickness grafts, it is necessary to accurately appose the edges of the graft with some tension, and to apply an even sponge pressure during the taking period. The so-called sieve graft, as advocated by Douglas, is a whole-thickness skin graft perforated with holes. Small pieces of skin are left at the donor site. This has the advantage of providing drainage for the grafted skin, while the donor area is left partly closed by the islands left at the site.

The injection treatment of varicose veins is successful in about 90% of cases. A strong dextrose and saline solution is most commonly used. To guard against possible pulmonary emboli, it is advised that not more than 10 c.c. be injected at one sitting. The small number of emboli occurring is explained by the fact that there is a stagnant or even a reverse flow of blood in varicose veins.

I would like to mention an operation which I successfully tried on large, fat ankles in a young woman otherwise normally proportioned. The operation is somewhat similar to the Condoleon operation performed in the

tropics for elephantiasis. A linear incision is made on the outer side of the leg, from the middle of the calf to the maleolus. An elliptical piece of skin, and almost the entire superficial fascia are removed. To accomplish this, undercutting the skin to the mid-line, both front and back, is necessary. I waited a year before treating the inner sides the same way, realizing that I had completely destroyed the superficial circulation. Healing was uninterrupted and the final result very satisfactory, although severe shock was caused by the extensive dissection and exposure of tissue.

Practically all hernias are now considered amenable to surgery. The treatment of diaphragmatic hernia is aided by a preliminary paralysis of the phrenic nerve, the reduction and closure being done through the abdomen. X-ray is of the utmost value in diagnosis of such cases.

A successful and slightly original operation for undescended testicle has been performed by myself and associates for years. The cord and testicle are freed as high up as possible and most of the cord structures are dissected away, leaving only a small blood supply to the vas and testicle. This remaining cord is stretched until the testicle can be implanted in a bed bored in the scrotum by the finger. A silkworm gut stitch is now inserted through the skin at the bottom of the scrotum, through the lower part of the testicle, and back through the skin. This is tied and left long, the ends being attached to an elastic band fastened to the lower part of the thigh. This procedure has been attended by satisfactory results over a period of years.

GYNECOLOGY

The number and multiplicity of operative procedures in this field have narrowed down considerably. Cervical operations are now seldom performed, ulcerations and chronic cervical infections being satisfactorily treated by cautery, while carcinoma of the cervix and body of the uterus is satisfactorily treated by radium. Uterine prolapse in the child-bearing period is treated by some form of round-ligament shortening, combined with vaginal plastic work. After the menopause, an abdom-

inal fixation, or the Watkins-Wertheim interposition operation, is advised.

Functional uterine hemorrhage is said to be controlled by hypodermic administration of prolan B, a preparation obtained from the urine of pregnant women and containing an anterior pituitary extract. In these cases, there is an absence of corpora lutea, due to failure of the graafian follicle to rupture.

The Aschheim-Zondek test in the diagnosis of pregnancy is an outstanding advancement, and an accurate opinion can be given in 24-36 hours by injecting the urine of the patient into an immature female rabbit.

Gas inflation, for establishing the patency of the fallopian tubes, has diagnostic value, and is useful in treatment of sterility.

SURGERY IN DIABETICS

An operation on a diabetic person is no longer attended with the dangers previously feared. Gas oxygen, ethylene, local or spinal anesthesia and dietary and insulin treatment should be used, in coöperation with an internist, both before and after the procedure. With diabetic feet with osteomyelitis and gangrene, ordinarily amputated, we have had success in 2 cases by a simple conservative operation. Gangrenous toes are removed and the foot split down between the infected metacarpals and the halves spread apart. Dead bone is removed and necrotic cavities are curetted. The skin is now brought together with a few sutures, leaving a little gauze packing in the cavity for the time being.

I cannot close this communication without a word of appreciation of the staff of the library of the Academy of Medicine of Northern New Jersey, where much of this data was assembled.

DISCUSSION

Dr. George N. J. Sommer (Trenton): It gives me great pleasure to make this survey and discuss Dr. Blackburne's efforts.

Under the heading of the choice of anesthesia, I am in accord with his statements and we are in the habit of using gas oxygen and ether anesthesia, spinal and local, for the indications that he has set down. In goiter surgery we are more inclined to the use of morphine, scopolamine, gas oxygen anesthesia; with sodium amytal I have had no experience but in some parts of the state it is quite popular.

I am also in accord with the early débridement of traumatic wounds and also in the treatment

of compound fractures. I have seen very fine results in early débridement in compound fractures combined with the use of Dakin's solution. It offers a treatment which meets with our approval and we have treated some cases of gunshot wound involving the bones under this plan where there was loss of tissue after débridement, and gotten good results.

In burns the standard treatment with us is tannic acid and we have nothing but good to say of it.

The suggestion made by Dr. Teeter in regard to the use of the hemoglobin estimation as a guide in internal hemorrhage seems to be a very good one. It is not always easy to determine the presence of an intraperitoneal hemorrhage and this would seem to be a very safe guide. I shall try it out at the first opportunity.

In regard to the treatment of concealed hemorrhage or in cases of hemorrhage not concealed, we are very much struck with the results obtained in the use of citrated blood, giving 40 c.c. intramuscularly. I am well aware of Dr. Blackburne's liking for the Lillenthal procedure, but I think the citrated blood is less painful than the sodium citrate solution.

He has called attention to Dr. Hagerty's outstanding work in goiter surgery in our state, and our method of preparation for the goiter patient has been that of giving 5 gr. of luminal the night before, 5 gr. at 5 o'clock in the morning, at 7 o'clock a quarter of morphine and 150 of scopolamine, and operating at 8 o'clock with gas oxygen anesthesia. We see no reason to discontinue this method because it has served our purposes very well; nevertheless, with all due respect to Dr. Hagerty, every man has to develop a method for himself depending upon his situation, and with whatever method he gets good results is the method for him to pursue.

In the operative preparation of the skin area, we have used iodine in the same proportions that Dr. Blackburne has recommended; however, recently we have been using a tincture of metaphen 1 to 200 and 1 to 500, particularly among our goiter patients, and to date we are fairly satisfied with it.

Double operating teams, particularly where there are double hernias, to my mind, or double operations to be done on a patient on 2 limbs, is the solution to that problem. The endothermy knife we have used to a great extent. I have done 20 breast amputations with the endothermy knife and used it on pilonidal fistula in any number of cases. Be particular to find the lowermost dimple. If you fail to get out the lowermost dimple in a pilonidal fistula, you are bound to have a return.

We have also used the endothermy knife in carbuncles and find it lessens the shock in operation and lessens the amount of hemorrhage. There are practically no vessels to ligate and those that need ligation are easily controlled by the coagulating power of the current and our healing in this class of cases is no longer than it was under the old method.

We believe in widely undercutting the edges after making a crucial incision through the carbuncle and cutting out with a wire loop as much of the dead and decayed tissue as possible. In that way we shorten the convalescence materially, I think, and the most curious thing is the utter absence of postoperative pain. We practically have not had to use any narcotics whatsoever in the treatment of extensive carbuncles, so that I am greatly in favor of this method of the surgical treatment of carbuncles, using the crucial incision

and undercutting, and we have relatively little loss of tissue.

In the pre-operative diagnosis of suspected acute surgical conditions in addition to the leukocyte count we have entered upon a study of the value of the rapid sedimentation time and we have found it of considerable value in the treatment and care of pelvic infective diseases.

In the study of kidney conditions we have been favorably impressed with the advantages of skiodan over uroselectan. We are very much concerned in our urologic cases with the urea nitrogen. We have found that the urea nitrogen was a much more satisfactory index of renal efficiency than the phthalein output.

We are agreed on the question of fluids before and after operation. It matters relatively little how it is given, intravenously, subcutaneously, or by rectum. I am well aware that tap water does as well as the glucose or soda and salt solution in the rectum.

In the preparation of the cardiac case it is our practice to call in the services of the cardiologist. The same thing is true in metabolic states. We make use of the metabolist. We do not hesitate in our surgical service to call in the medical service and ask for surveys on our patients and we are guided by their opinions as to the value of surgical procedures in the cases under discussion.

Regarding the successful management of peritonitis, there is no doubt there is much work still to be done. A proper coöperation between the medical, metabolic, and cardiologic services of the hospital in the management of the surgical cases of that hospital will lead to much better results in the future.

Dr. George Blackburne (Closing): I wish to thank Dr. Sommer for his very kind remarks and also the President and Program Committee for affording me the opportunity of compiling this data.

INDUSTRIAL EYE INJURIES AND COMPENSATION CLAIMS ARISING THEREFROM

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At the Annual Meeting of this Society in 1923, the author of this paper called attention to the haphazard and discordant methods then in vogue, for estimating the percentage of permanent disability resulting from eye injuries, under the Workmen's Compensation Act, in this state. An immediate sequel of that communication was the appointment, at the suggestion of Dr. Marsh, of Paterson, of a committee to devise a scheme for computation of the percentage of disability in industrial eye injuries. The report of the committee was presented to the Society at its next Annual

Meeting (1924). The proposed plan was adopted and recommended for use throughout the state. Computations made in accordance with the suggestions of this report have been uniformly accepted by the compensation courts. One of the chief purposes of the plan was to bring about uniformity of procedure. Those of us who had to deal with industrial eye injuries previous to 1924 know how well this purpose has been achieved. The interest and coöperation of ophthalmologists all over the state were immediate and have continued.

Because requests for the report are still being received, and because the supply of reprints was long ago exhausted, the publication of a brief summary of its essential features, together with some discussion of its application in practice, may be worth while.

The committee did not claim that the proposed methods of appraisal of visual disability were scientifically accurate. They were offered as a simple and practical guide or standard, to be modified, if necessary, in unusual or complicated cases. Because there has been misunderstanding, at times, as to the scope and application of the plan, permit me to repeat and emphasize a prefatory statement of the report:

"This report is concerned solely with the determination of the percentage of visual disability caused by industrial eye injuries in this state. Legal enactments and judicial interpretations place definite limitations on the scope of such a report. For instance, we are not permitted to consider the age of the injured employee or the nature of his occupation, his technical ability or his ability to compete. To some extent and by implication, the law takes these conditions into consideration by basing the amount of the award on earning ability (daily wages).

The Employers' Liability Act in this state makes no attempt to define normal (standard) vision or industrial blindness, or to direct how the percentage of visual disability shall be determined. All this is left to the eye surgeon.

The following extracts from the law are about all that we have to guide us:

Art. II, Sec. 2, Par. (s)—'For the loss of an eye, 66 2/3% of daily wages during 100 weeks.' (Minimum \$8, maximum \$17 * a week.)

Par. (v)—'The loss of . . . both eyes . . . as a result of any one accident shall constitute total and permanent disability.' (Compensation is awarded for 400 weeks.)

Par. (w)—'In all lesser or other cases involving permanent loss, or where the usefulness of a member or any physical function is permanently im-

* Now \$20.

paired, the compensation shall be 66 2/3% of daily wages, and the duration of compensation shall bear such relation to the specific periods of time stated in the above schedule as the disabilities bear to those produced by the injuries named in the schedule; provided, however, that in cases in which the disability is determined as a percentage of total and permanent disability, the duration of the compensation shall be a corresponding portion of 500 weeks.'

In addition to keeping within the legal limitations we have, with some minor exceptions and elaborations, followed established custom and procedure in this state, and have adopted, as far as possible within the above limitations, the teachings of recognized authorities on visual economics. Our chief aim has been to offer a method that would be simple and practicable and at the same time fair to both employee and employer. This, as well as all other methods that have been proposed for estimating the percentage of disability caused by eye injuries, is more or less arbitrary. Common sense and good judgment should be used in their application to individual cases. This report is offered only as a general guide. Unusual and exceptional cases will require special consideration."

The following are the main features of the methods recommended in the report:

"We accept and endorse the teachings of well known writers on visual economics that in the function of vision there are 3 essential elements, (a) visual acuity, (b) binocular single vision (muscle function), and (c) field of vision, and that each element stands in the same relation to the others as do the factors of a product. After the measurement of these essential elements by the usual and accepted methods we recommend the following principles for the determination of the numerical, coördinate value of each element:

Visual acuity. The total value for full normal visual acuity shall be an integral factor. Its total or partial numerical value shall be determined by using test-types, constructed in conformity with the accepted Snellen standard.

Muscle function. The coördinate numerical value of muscle function shall be determined on the principle that the loss of binocular single vision is equivalent to the loss of the use of one eye. The numerical value of this factor is 0 when there is an irremediable diplopia, and when there is partial diplopia, it is a fraction proportionate to the area of the motor field in which there is persistent diplopia.

Field of vision. A square root value shall be given to this factor. The primary numerical value for any part of the field shall be proportionate to its concentric contraction, and the coördinate numerical value for this factor shall be the square root of that quantity which measures the concentric area of the remaining field determined by the perimetric measurement.

For determining the numerical values of the elements, visual acuity and field of vision, we submit the following tables:

Table 1. VISUAL ACUITY

Showing percentage of visual impairment as shown by the ability to read standard test type

Snellen expression	Percentage value of visual acuity	Percentage of loss
20/20	100.	0.
20/30	94.5	5.5
20/40	89.	11.
20 50	83.5	16.5

Snellen expression	Percentage value of Visual acuity	Percentage of loss
20/60	78.	22.
20/70	72.	28.
20/80	67.	33.
20/100	55.6	44.4
20/120	44.	56.
20/150	28.	72.
20/180	11.	89.
20/200	0.	100.

(industrial blindness)

This table is based on the assumption that 20/20 is normal vision, and 20/200 or less is industrial blindness. These standards have been used and accepted in this state for several years. About 95% of permanent disability cases can be settled by this table alone. Impairment of visual field from injury, without coincident serious impairment of visual acuity, is rare. Traumatic paralysis of the ocular muscles is also infrequent.

Recognizing that impairment of the visual field is much less important than proportionate loss of visual acuity, and that its importance is accentuated as the contraction increases, we agree with Magnus and Wurdemann and A. C. Snell that this element should be given a square root value when used as a factor in estimating total visual function. This treatment allots relatively small value to slight impairments of the field, and disproportionately increasing value as impairment increases. The following table is by Dr. Snell:

Table 2. FIELD VISION

Contraction to	Percent of normal field	Coordinate value of field
65°=100	square root of	=100
60°= 92	" " "	= 96
55°= 83	" " "	= 91
50°= 75	" " "	= 86
45°= 67	" " "	= 81
40°= 59	" " "	= 76
35°= 50	" " "	= 71
30°= 42	" " "	= 65
25°= 33	" " "	= 58
20°= 25	" " "	= 50
15°= 16	" " "	= 40
10°= 8	" " "	= 28
5°= 0	" " "	= 0

No table can be constructed that satisfactorily expresses the percentage of disability caused by paralysis of one or more external ocular muscles. If the condition is incurable, causing persistent diplopia, it necessitates the constant closing or covering of the affected eye, thus rendering the individual practically monocular. Such cases should be awarded compensation for total loss of the eye. Other cases, in which there may be diplopia in only part of the field of fixation, should be given a smaller award proportionate to the diplopia area.

For permanent, complete paralysis of accommodation of one eye, with which is usually associated mydriasis, we believe a loss of 25% should be awarded.

Method for computing percentage of ocular disability. After determining the primary numerical value of each of these elements—visual acuity, field of vision and muscle function—the total visual ability is obtained by treating these values as fac-

tors and multiplying them together. This may be expressed as an equation in which V represents visual acuity, F field, M muscle function and A total visual ability, thus: $V \times \sqrt{F \times M} = A$.

In a case of normal or 100% vision, the value of each factor would necessarily be 1. Substituting this value, the formula would be: $1 \times \sqrt{1 \times 1} = 1$ (or 100%).

Total loss of any of these elements gives a 0 value to the corresponding factor and, of course, a 0 product, as follows:

- For visual acuity
- $-A = 0 \times \sqrt{1 \times 1} = 0$
- For field
- $-A = 1 \times \sqrt{0 \times 1} = 0$
- For muscle function
- $-A = 1 \times \sqrt{1 \times 0} = 0$

To obtain the percentage of impairment when there has been partial loss of one of the elements of visual ability, the percentage value of remaining function is substituted as a factor in the equation.

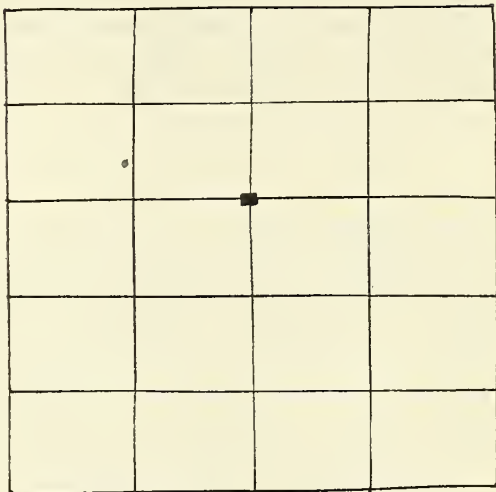
When only one of the elements is damaged, the percentage value of remaining visual ability is the same as the value of the element impaired."

Concerning the measurement of impairment of muscle function, the report of the Committee on Compensation for Eye Injuries of the American Medical Association adopted in 1925 (1 year later than our report) suggests the use of a chart for plotting diplopia. It is divided into 20 rectangles, $4^{\circ} \times 5^{\circ}$ in size. The partial loss of muscle function is that proportional area which shows diplopia as indicated on the chart, compared with the entire motor field. Calculations of the percentages of motor efficiency based on the diplopia areas are shown in the accompanying table.

Table 3. LOSS IN MUSCLE FUNCTION

No loss	equals	100%	Motor field efficiency		
1/20	"	98%	"	"	"
2/20	"	95%	"	"	"
3/20	"	92%	"	"	"
4/20	"	89%	"	"	"
5/20	"	87%	"	"	"
6/20	"	84%	"	"	"
7/20	"	81%	"	"	"
8/20	"	77%	"	"	"
9/20	"	74%	"	"	"
10/20	"	71%	"	"	"
11/20	"	67%	"	"	"
12/20	"	63%	"	"	"
13/20	"	59%	"	"	"
14/20	"	55%	"	"	"
15/20	"	50%	"	"	"
16/20	"	45%	"	"	"
17/20	"	39%	"	"	"
18/20	"	32%	"	"	"
19/20	"	22%	"	"	"
20/20	"	0%	"	"	"

MOTOR FIELD CHART



Comment has been made that the percentage of loss of vision in the A. M. A. table is based on Snellen notations for both distance and near, while in our table distance vision only is considered. In the majority of cases this is of no practical importance, because in normal eyes the visual acuity for near and distance is the same, if the tests are made with due regard for illumination and accommodation, and with test objects made to conform accurately to the Snellen 5-minute and 1-minute angles. This is also true of all but a small percentage of abnormal eyes. Snell carefully tested 850 cases of abnormal eyes; he found only 8% in which there was any positive difference in the acuity at near and at distance, and when any difference was found, it was of low degree in a large percentage of cases. He concludes that, "in determining a percentage loss of vision, such as is often demanded in medicolegal or compensation cases, our investigations would clearly indicate that in only those injuries in which the center of the cornea or the lens has been involved is it necessary to make a near visual acuity test, since in other cases of ocular disability the near acuity and the distance will be identical."

Our method gives one considerable latitude in dealing with those exceptional cases, such as small central opacities of the cornea or lens in which the acuity varies with the size of the pupil, and with them I favor measuring the vision for near and distance separately

and giving the near vision, as suggested in the A. M. A. report, a twofold value. Thus, if the visual loss for near is 28% and for distance 16%, the central visual loss would be

$$\frac{(28 \times 2) + (16 \times 1)}{3} = \frac{56 + 16}{3} = \frac{72}{3} = 24$$

As long ago pointed out by Professor Snellen, measuring the near vision is much more difficult and less accurate than distance tests. Beside the necessity for considering power of accommodation, the size of test objects and exact distance at which the test is made afford relatively greater room for error in near than in distance testing. Near, as well as distance, visual acuity should be expressed in accordance with the Snellen formula: $V = \frac{d}{D}$ in which d is the distance of the eyes from the chart and D is the distance at which the letters subtend an angle of 5 minutes. In reports of industrial accidents, the visual disability should be expressed in percentages, the Snellen notations being transposed to the values indicated in the visual acuity table. "Percentage" and "per centum" are the terms used in the phraseology of the law and of the compensation courts. Snellen notations cause confusion and misunderstanding.

The general acceptance of 20/20 as normal vision is a hardship to those claimants whose normal vision is better than this. We all know that some eyes have a visual acuity of 20/15 or better and that the minimum separability of the emmetropic eye is 43" rather than 1'. These facts should be considered when estimating the visual loss of an eye whose fellow eye has better vision than 20/20.

Most industrial eye injuries are trivial and are recovered from with no permanent impairment of function, but every case has the elements of a potential claim. Therefore, the surgeon who first sees the patient should, as a matter of justice to both employer and employee, make a careful record of the cause of the accident, of previous injuries, vision, and any preëxisting pathology, such as scars in the cornea and lens opacities. Not infrequently, months after a slight accident, an employee will, often in good faith, falsely attribute to it a serious loss of vision which

is really due to some preëxisting condition. Unjust claims of this kind cost insurance companies and employers large amounts. If a proper examination and record have not been made, it is sometimes impossible to disprove such a claim. Because of the nature of the case, it is not always possible to make an accurate visual test of a recently injured eye, but this should be done as soon as possible. Simulated amblyopia seldom appears until the employee has had time to reflect on the possibilities of capitalizing his accident. If the impairment of vision is not reasonably accounted for by the injury, the real cause should be ascertained.

Many of us are asked, more or less frequently, for an opinion as to the amount of permanent disability of an eye which has been injured months previously. Often we must decide whether a lesion is traumatic or nontraumatic, congenital or acquired, recent or old, and, if both recent traumatic and old lesions are present, what percentage of the disability was caused by each. In most cases, it is not difficult for one experienced in this work to make an appraisal of the disability, but other cases tax the examiner's skill and patience to the limit, particularly when symptoms are simulated or exaggerated.

My usual procedure, after securing a history of the case, is to determine as precisely as possible the visual acuity without and with glasses, after having first made a brief preliminary dark-room examination (noting particularly the pupils, scars in the cornea or other opacities in the media) and also a rough estimate of the refraction with the retinoscope. Exaggeration of visual impairment is so common in this class of patients, that I always begin with a malingering test. Even then, an exact determination of the acuity often requires considerable tact and adroitness. Further procedures depend upon what the preliminary examination and visual test have disclosed. These usually include a more thorough exploration of the media and fundus with the ophthalmoscope, using a mydriatic when needed; a measurement (at least approximate) of the refraction; and, when indicated, studies of visual and fixation fields and the use of the slit-lamp.

A report based on the findings of an examination of this kind should be an accurate, concise, unbiased statement of facts, in phraseology which can be understood by intelligent laymen. Guided by it, the attorney for the employee decides whether to sue or to make the best possible compromise. If the examination is made for the employer or insurance carrier, decision to settle or contest the claim is usually controlled by the opinion of the medical examiner. In accepting a case of industrial trauma for examination, there is an implied obligation to maintain one's opinion in court, if necessary. Fortunately, this is seldom necessary, as most cases, at least those in the northern half of the state, are settled without a formal hearing. This is partly because of our standardized procedure for estimating the percentage of permanent disability, and partly because most of those who are doing this class of work are willing to get together in a spirit of coöperation and find out why their opinions differ in a given case. A reconciliation of views may thus be brought about. As the award in practically every compensation case is based on the amount of disability, either temporary or permanent or both, litigation is seldom necessary if the medical opinions are not too divergent. "Who shall decide when doctors disagree?"

Why do we disagree? In most cases of traumatic disability of the eye, unlike injuries of the brain, spine and internal organs, the lesion is open for inspection. Some physical change can be found and usually seen, to account for subjective symptoms which really exist. Sound judgment is not always used in co-relating a traumatic lesion and its claimed results.

If the alleged visual disability of a subject, with a strong incentive for deceiving the examiner, is not accounted for by the ocular changes as revealed by adequate examination, the estimate of amount of disability should be based on what is reasonably in accord with the physical findings. For instance, a small superficial scar of the cornea which, in the light of one's experience, cannot, because of its size and location, cause more than 5 or 10% impairment of vision, should not be rated as a 45% loss simply because the vision is

apparently reduced to 20/100. Neither should impairment of vision caused by such conditions as cataract which is plainly senile, fundus lesions due to general disease, glaucoma, amblyopia from anisometropia, or old opacities of the cornea, be charged to a recent eye injury simply because the claimant insists that the eye was "all right" before the accident. Yet such claims are being made constantly, and, if backed by medical testimony sufficient to raise a slight doubt in their favor, are often successful. Too frequently is the medical opinion in these cases based not on probabilities but on remote possibilities.

The medical expert's fee for his opinion or testimony in court should not be contingent on the successful outcome of the case.

A common reason for disagreement as to amount of visual loss is failure to determine, precisely, the visual acuity. To do this is important but not always easy, especially when dealing with a subject who tries to exaggerate his disability. It requires care, persistence, and often strategy. But even when the patient is honest, and coöperates, there is often a difference of 5%-10% which can only be accounted for by carelessness or inexperience on the part of one of the examiners, or faulty technic, including inaccurate or unsuitable test charts, inadequate illumination, and failure to have the eyes at the proper distance from the chart.

Several years ago, a committee of the Ophthalmologic Section of the American Medical Association called attention to the inaccuracy of many charts then in use. Satisfactory charts can now be had which not only are accurate but have smaller gradations between the larger letters.

Because of a New Jersey Supreme Court decision in the case of *Johannsen vs. Union Iron Works*, in 1921, there has arisen some misunderstanding as to the permissibility of correcting refractive errors before estimating the visual loss in compensation cases. In this case, according to the medical testimony, there was corneal astigmatism resulting from a superficial injury of the eye which caused 33 1-3% impairment of vision, but it was admitted that with a correcting lens, the vision was normal. The defendant contended that

as there was normal vision with the aid of glasses, there was no disability. The court ruled that the amount of disability must be based on the uncorrected vision.

The only logical interpretation of this ruling is that glasses cannot be used to correct a refractive error caused by an injury. It seems absurd to maintain that antecedent or nontraumatic errors cannot be corrected. Such a rule would, for example, make all myopic eyes of 2 or more diopters, industrially blind irrespective of the nature of the injury.

In accordance with this discussion every case of complete traumatic cataract is a 100% loss no matter how much vision may be recovered following absorption or operation.

DISCUSSION

Dr. Wallace Pyle (Jersey City): At the Annual Meeting of this society in 1923, when the original paper on the estimation of permanent disability resulting from eye injuries was read by Dr. Sherman, few of us had sufficient experience in this line to give anything more than a desultory discussion, even though the discussion did last almost the entire morning. It is now a very timely return to this subject, as, were it not for this compensation work, many of us would practically be out of active practice.

Were the state law to allow us to take into consideration the character of the work, the age of the man, his dependents at home, etc., the door would be thrown open so wide that the bought medical testimony would almost throw the insurance companies into bankruptcy.

Dr. Sherman has brought out that the chief purpose of his paper is to establish a uniformity of procedure and an equalization of permanent damages, as the tables are not yet in general use. Experience of others has also shown that a full 95% of these permanent disabilities can be settled satisfactorily by means of these tables and that by conforming to them the other 5% presenting the unusual complications can almost always be adjudged satisfactorily by the addition of the doctor's good judgment and experience.

He has made an effort to better the already existing permanent damage percentage tables which all of us, from time to time, felt needed to be revised to comprehend not only the diminution in vision for distance but the near impairment, the field of vision, and the extra-ocular muscle deficiencies.

It is interesting to hear of Snell's experiments in which he examined 850 abnormal eyes and found only 8% in which there was any positive difference in the acuity for near and for distance. Most men are more dependent on good near vision than on the distant vision in their work and despite this undisputable record of Dr. Snell's, it has been my habit in estimating the final percentage, to add a little more onto the man's permanent distant defect when I found he had an added near visual defect out of keeping with his distant visual acuity. It is true that it is extremely hard to catch the malingering in the near test but an average

estimate can be judged. Within the past month, I have seen 3 good-sized central corneal opacities, visible to the naked eye, with absolutely normal distant but some impairment of near vision and I allowed them all a small percentage of loss even with this good visual acuity, as I felt there would be times when these people would be bothered by the scar tissue.

A man's visual acuity should be judged with his hypermetropic or myopic correction on, for we know trauma does not cause these conditions, but should he have some corneal astigmatism, from the presence of scar tissue, whether corneal, scleral or conjunctival, he should have the benefit of the doubt, even if there exists a corresponding amount in the other eye.

Many of the younger men are allowing the full percentage of loss from an injury to a highly myopic eye, ignoring the fact that the myopia without correction is causing the diminution in vision and not the trauma. The characteristic retinal stretching from high myopia is often mistaken for the end-results of a retinal trauma, and perhaps rightly sometimes, as the retinal changes found months after an injury are perplexing to even the best ophthalmoscopist.

Lately we seem to have had a run in our local compensation court of alleged impairment of vision following trauma of the skull, mild or severe, with fracture or without. Fortunately, many of them do not come for the visual examination until quite a time has elapsed after the head injury, when there must certainly be some signs of an optic neuritis or atrophy showing in the nerve head. The malingeringer with greatly diminished vision in both eyes, with a mild contraction of the visual field, will tax anybody's ingenuity. A frequent mistake of the malingeringer in the examination of the field of vision is that he will often register only a 5° or 10° field of vision, which is obviously a deceit and the fraud is easily recognized.

In this state our compensation law gives a man suffering with a traumatic cataract practically a full 100% allowance but there may be exceptions to this, in which there is a highly myopic eye from which can be obtained V. 20/200 or better, without the use of glasses, after the lens is removed; 100 weeks is not too much for the loss of this accommodating power and lens. I feel that 25% now allowed for the loss of accommodation from traumatic paralysis is not sufficient even with a lens in situ; 50% seems more in keeping with the damage. To the insurance company there is no value in the removal of the cataract but I have yet to see one company who was not willing to foot the bill without argument for the cataract extraction, in order to improve the man's vision and visual field.

Walker's article (March Amer. Jour. Ophthal.) states that optic nerve atrophy seldom comes from injury. The records of our local bureau seem to bear out this statement, even though most all those with head injuries make complaint of poor vision and hearing but occasionally one finds a beginning pallor of the nerve head, loss of vision and a contraction of the field. There may not necessarily have been a fracture in these cases, but only a hemorrhage into the sheath of the optic nerve.

Many of us feel that a 3-4 month period is all that is necessary for the restoration of binocular vision, following trauma to one of the extra-ocular muscles. In one of my own cases, 6 months elapsed before I rendered a final report to the insurance company that I considered the diplopia

was permanent and that they would have to allow the man a full 100% for this deficiency. After another 6 months had elapsed, I had the opportunity of seeing this man and found the diplopia had entirely disappeared. Such statements as these, put down in black and white and sent to an insurance company, tend to put us in an inferior light but we are only human and even the most experienced cannot prognosticate accurately.

Compensation for loss of binocular vision in the primary position in New Jersey calls for 100% loss of the convergent or divergent eye, sufficient to cause diplopia. New York has modified this to some extent, in that it held that partial disturbance of binocular vision confined to one quadrant did not necessarily justify an award for the total loss and their department records the loss of an eye if there is a manifest diversion in the primary position but a loss of only 15% if diplopia is found in 1 of the 6 cardinal positions.

The table Dr. Sherman has shown us, for the muscle deficiencies, is quite scientific but will be seldom used, except by those making special study of this branch of medicine.

Mr. V. A. Zimmer, director of the division of Department of Labor of the Workmen's Compensation Bureau in New York, in an article read before the New York Academy of Medicine, section of ophthalmology, pointed out the necessity of oculists making and retaining the complete case records. Experience has taught us that it is even more necessary to keep records for an eye case than for other injuries of the body. I wish to emphasize this point, as when giving testimony in court; if an oculist is able to say that on a certain date he was able to get so much vision, a few days later an increase in vision, and a few days later still better vision, he has then a record to substantiate his statements and will be believed.

The commissioners have learned by experience to judge us in the same manner we have learned to judge the exaggerating patient and it makes a very excellent presentation of a case to substantiate your evidence. Sound, rare judgment of human nature, combined with good common sense along with the fixed rules that have already been laid down for us, go to make the best examiners whose reputations will carry on indefinitely.

It has always seemed to me rather an unfair position to place the insurance carriers in, in the cases of latent syphilis with a very slight trauma of the eye lighting up the old preëxisting syphilitic affection to such an extent that there is a very high percentage of loss of vision, due to a very minor injury.

The question of prognosis and ultimate outcome is always a very uncertain problem. We have all seen a contraction and thinning of the corneal pupillary scar tissue with improvement in vision. A short time ago, 2 very excellent observers examined a man with me and we allowed him a full 100% for vitreous opacities secondary to a keratitis profundi. We all felt that this condition was permanent and that there would be practically no improvement. You can imagine our chagrin when the case was called for trial on checking the man's vision roughly in the Bureau, at his own suggestion, we found it to be absolutely normal. Dr. Sherman has reported another case that is equally interesting, of his observation of lenticular opacities following a penetrating wound of the lens, with complete restoration of vision.

A few years back 2 eye specialists testified before an honest but eccentric Judge sitting without a jury on the relative merits of an injured eye; one said there was no permanent deficiency and the other that there was a full 100% loss. One of these physicians who was acquainted with the Judge's secretary, out of interest asked her how the Judge accepted these 2 diametrically opposite opinions. His remark to her was: "I will throw the whole thing out, they are both liars."

The referees sitting in the Workmen's Compensation Court have an equally difficult position to decide the merits of an injured eye. They hear the evidence of one or more reputable men on the one side and then listen later to one or more equally reputable men on the other side with different views, and it is only a very unusual lawyer with some knowledge of medicine who can distinguish right from wrong and can shade the testimony in his own opinion to suit the case. A referee placed in this position and having to make some definite settlement, would in my mind be fairly justified in averaging the percentages given by the so-called medical experts.

An eye examination, like other general examinations of the body, can be stretched to suit the wishes of the medical examiner and we may have these numerous revisions of our percentage schedule to meet all demands and yet have the errors creep into the final awards, by reason of the personal equasion of the examiners.

An oculist listening to the testimony given by the men of our specialty in a court proceeding is often surprised how some of those regular testifiers can get along day after day without being summarily thrown out of court on their entirely different views on the same kind of injuries, depending on which side of the case they are on. The situation will never be stabilized as long as the unscrupulous, the inefficient and the money grabbers are allowed to present their views in open court. To my mind, the system we have here in New Jersey, of having an eye man connected with each local bureau, making an examination for the state, reporting directly to the Commissioner, is an excellent one, in so far as he may render a fairly impersonal and unbiased opinion, without knowing who the contestants are.

An Adjunct Commissioner who is a qualified eye specialist sitting in eye cases would be an advantage. First: the unscrupulous would be very apt to have a greater regard for what he would say on the witness stand, either for or against, if a state oculist was sitting along side the presiding officer. Secondly, this Adjunct Commissioner would have his own examination, report and opinion. The man who is paid by the state, to be an accessory commissioner, would be willing to see fair play on both sides.

A local board of 3 men paid by the state, attached to each bureau and whose opinions written separately should be considered final, would seem to be the ideal method of exact determination of percentages. In cases of difference of opinion, the mean percentage of the 3 estimates would give a man as fair a percentage as possible.

The Workmen's Compensation Bureaus are now clogged with formal hearings but if each local bureau had such a commission examine each case, and the plaintiff had to accept their findings, there would be many less long drawn out proceedings on simple matters. As it is now, a young lawyer has a very excellent opportunity of getting some

clinical work in his own line, with pay by the insurance carrier no matter what the merits of the case are.

Years ago most of us felt that the insurance companies were too evasive and that nothing could be gotten from them except by suit and that they were absolutely hard boiled. Those of you who have gradually worked into the compensation and legal part of medicine, in this specialty, can understand why this impression was so marked with us, on account of the exaggeration of complaints and malingering of almost all the injured workmen. The conscientious examiner sometimes will sweat blood in his effort to be just and fair, in rendering his final opinion as he thinks it should be.

It is still extremely difficult to convince the large corporations that they should secure an accurate estimate of the vision of their employees for possible future use after injuries. This has been suggested several times to our local firms and they have relegated the work to an optician whose interest was only to sell his wares and whose statement in the settlement of a case is of no value and will not be held competent in court. The insurance companies are well mulcted yearly but not having such records in their files.

Miss Perkins, State Industrial Commissioner of New York, in a speech before the State Industrial Claims Association, on May 26, 1932, stated that she had the greatest respect for the medical profession but she found there was a certain small number of men who were turning the compensation work into a third rate business. Such criticism may be just but is unfair to a great many.

Chairman Harley: My own copy of the 1924 report of Dr. Sherman's committee is well nigh worn out. I use it frequently. It is my fortune or misfortune to be in court quite often. I have not had a court, either a compensation court or a judge in any other court, refuse to accept the figures that appeared on the charts Dr. Sherman has exhibited.

A question or two, Dr. Sherman, please: Is it fair to ask an insurance company to pay for dyscrasias, defects that are increased by the presence of dyscrasias, say syphilis, in the patient when the injury lights up the latent syphilis? Dr. Pyle said that was unjust, in his opinion. Will you also say a little more about just what you think is the proper illumination for test letters?

Dr. Browne Morgan (Bloomfield): We had a very interesting clinical meeting in Newark some time ago in reference to head injuries, with the ultimate result that an optic nerve atrophy was demonstrated which did not take place anywhere from 6 months to 2 years after the injury. That was shown by x-rays. Atrophy of the brain resulted in quite a defect in the vision, and to me it was very interesting. It showed the time that elapsed between the injury and the effect which you got on the nerve. It was at Mt. Sinai Hospital. I don't know if any of you were there or not, but those things might be taken into consideration by our Section I think.

Dr. Campbell (Long Branch): This question of the lighting up of latent disease by injury seems to me a question of importance, because I believe it has been that lighting up of latent disease and the loss of vision due to it that is a debatable compensation question. I believe it should be com-

pensated for; considering the fact that the injury does actually light up latent disease.

Chairman Harley: It is legal, but I was asking for Dr. Sherman's opinion on the fairness of it.

Dr. Campbell: That question I believe should be discussed.

Chairman Harley: I do, too. If there is no one else, I will ask Dr. Sherman to close the discussion and answer the question.

Dr. Sherman (closing): I am no better qualified to answer the question than anyone else.

In regard to Dr. Harley's first question, there is a well recognized principle of the compensation law, known as aggravation of a preëxisting condition, which covers this point. There is another side to it which comes up very commonly; I think is decided the same way, namely, aggravation of an injury by a preëxisting condition. In Dr. Harley's case there is an aggravation of a preëxisting condition. An example of that is the starting up of a latent keratitis or trachoma after an injury. Aggravation of an injury by a preëxisting condition is noticed every once in a while when we have a severe keratitis, for instance, or iditis from a very trivial injury which ordinarily would cause no trouble, as a result of focal infection.

In both instances the aggravation is recognized by the compensation court, and the employer or insurance company has to pay on the basis of the resulting permanent disability.

Chairman Harley: You can't tell me offhand where I can quote that law.

Dr. Sherman: I can't tell you just now, but it is a recognized principle of law not only in this state but in other states. I can give it to you later.

With regard to illumination, there are 2 committees now working on the subject of standardization of visual acuity. This thing has been gone into many times before in different ways. The last International Congress of Ophthalmology appointed a committee to study this subject, and I suppose at the meeting next year in Madrid this Committee will report.

There is also an American committee on Optics and Visual Physiology, which is working on this problem I had in mind suggesting here this morning that this Section propose standardization of some kind, but on further thought I believe it would be well to wait until these committees report, and then if we do anything of that kind, propose a plan based on one or both of these reports.

Concerning illumination of test charts, my understanding is that 10 footcandles of uniform illumination is satisfactory. Increasing it up to 50 or 100 footcandles gives very little more visual acuity. On the other hand, it should not be much below 4 or 5.

One matter that Dr. Pyle referred to, which is of considerable importance, not only in diplopia but in other conditions, is the necessity of allowing sufficient time to elapse for full recovery, or as full as possible, before an estimate of permanent disability is made. For instance, in cases of muscle injury, I have seen improvement go on

over a period of a year. I am seldom willing to report in cases of diplopia following injury that the disability is permanent until a year has elapsed.

Again with scars of the cornea, it is well known that many thin out remarkably. It is not unusual for visual impairment of 20/200 or 20/100 to improve to 20/40 in a year. Occasionally, we get a similar clearing up of a partial opacity of a lens. Another instance, an example of which I saw only 2 or 3 days ago is massive hemorrhage of the vitreous. I examined the man last autumn and found vision reduced below 20/100 as a result of a large hemorrhage in the vitreous. He now has between 20/40 and 20/50 vision in this eye, but he was awarded 100% loss, and is being paid on that basis. So sufficient time should be allowed to elapse, no matter how long, before making an estimate of the percentage of permanent disability. The Compensation Courts naturally want to close these cases up as soon as possible and sometimes hurry us unduly.

Dr. Marsh (Paterson): Might I add just a word along that line? Dr. Sherman spoke of the illumination on the test card. There has been, as Dr. Sherman said, a certain amount of investigation and a certain amount of talk about the test cards—the inferiority of the test cards in many offices, and the insufficient illumination or excess illumination, perhaps, that is found in a good many cases on investigation.

I think, Mr. Chairman, that this possibly may be overdone. I do not know in my office what the illumination on the test card is in footcandles or in lumens, and the test cards that I use now are mostly not very new, but I think we have possibly a pragmatic test a little better than having a standard white card and so many footcandles of illumination. That is this: I know, for instance, and we all of us know, about what our own visual acuity is. We not only try it in the office at all times, but we try it in the clinics under different conditions and under other circumstances, and we know pretty exactly what our visual acuity is. If it is normal, and we get that on our office test cards, we know then that they are essentially right. For instance, if we get in the great majority, practically all, of our nonpathologic cases refracted vision of 20/15 or better on our test cards, that is good evidence that our test card is satisfactory for the purpose of determining vision, even in compensation cases, because what you want to know in your compensation case is not whether he has theoretic normal vision, but whether he has normal vision as compared with other people in his line of work.

On the other hand, it is an advantage if you are going to compare your finding with somebody else's finding in court to know you both have a balanced test, that you have the same chart, you have the same illumination, even if it is not very good in itself. If the 2 are equal they form together the basis of comparison. That is the advantage which I think Dr. Sherman stressed, but it seems to me that this question of illumination on your test cards can be overdone, Mr. Chairman.

LENTICONUS POSTERIOR

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About 5 years ago, a report of a typical posterior lenticonus which I had studied with the slit-lamp was published in the Archives of Ophthalmology, with an analysis of 4 similar reports, the only ones which had appeared up to that time. Since then, through the courtesy of Drs. H. H. Tyson and Joseph Ziporkes, of New York, I have been able to observe 2 other patients and study the conditions with the slit-lamp, and more than 20 slit-lamp studies have been reported under this title. Moreover, in this interval our knowledge of the normal and abnormal lens and neighboring structures has been greatly advanced, so the time seems opportune for a review of the whole subject of lenticonus posterior.

The number of case reports during the past 6 years—about half as many as in the previous 35 years—has raised the question whether this anomaly is so rare as had been supposed. Harrison Butler supports his contention, that it is not, by citing 6 cases of his own and referring to a number that he has heard of. He adds that probably many remain unreported, as not all ophthalmologists have the knowledge necessary to recognize a posterior lenticonus. But this argument works both ways, for some of the reported slit-lamp diagnoses are hardly further above suspicion than were some of the older ones.

Any exact diagnosis must be based on a satisfactory definition, and the best that I have found for this condition is that of Colombo, who says: "One should require in a veritable lenticonus the following characteristics: a congenital lesion, without anterior lens changes connected with the conus, and absence of any tissue changes pointing to disease or trauma; a transparent, hemispheric, sharply-outlined prominence on the posterior pole." This specification is almost too rigid, as it would exclude many otherwise undoubted cases on account of incidental, or perhaps secondary,

complications, but it is useful as a standard for comparison.

Comparison of the reported cases shows that, for the best results of study, some classification of them is also necessary. Finding no other system offered, I have grouped them as follows:

(1) Colombo's type form, a transparent hemispheric bulge, set "like a skull-cap" on the posterior pole of an otherwise normal lens. Five of the reported cases approach this standard closely enough to qualify. (2) (In a somewhat arbitrary order) those cases with opacity of the conus bottom, or irregularity of its form, but otherwise typical. Butler presents with his paper interesting cuts, which show a faint layer of opacity immediately before the conus and following the posterior curve, connected by a horizontal opacity with a similar layer on the surface of the embryonic nucleus, the whole figure being compared by him to a collar-stud. This appearance makes a link with my group 3, consisting of those cases with a good lenticonus, but with related opacities or other changes in the lens substance. In this group are Reese's 2 cases and Tyson's, all bearing an interesting relation to those of Butler. Tyson's case shows a group 1 lenticonus, but is complicated by a dense white axial opacity, shaped like a trumpet and placed between the embryonal nucleus and the normal site of the posterior surface. Reese's cases show a typical lenticonus contour, but, in the region occupied by Tyson's "trumpet", and Butler's "collar stud", the slit-lamp shows an empty crack between the embryonal and adult nuclei, and a group of small, dark, empty spaces extending back from it to the conus base, the whole resembling a volcano and spreading smoke cloud. On comparing them, one is struck by the thought that they may be 3 different stages of the same process, beginning with the "volcano", or incipient stage, and passing through the faint opacity of the "collar stud" to the dense opacity of the "trumpet". (4) Here I have grouped a number of cases of which the description is so vague, or the complications so anomalous, as to render classification uncertain, and even to make it doubtful if some are true lenticonus cases. Bothman describes cataractous

changes of the posterior surface which obscure the surface outline. His conus begins at the embryonic nucleus, with changes in this nucleus itself, which he regards as evidence that the formation began much earlier than usually supposed—an interesting assumption, if correct, but one not necessarily valid, as we shall see. (5) Finally, I have applied the term *quasi-lenticonus* to a small group which are certainly not "veritable" lenticonus in any sense that Colombo's definition could be stretched to cover, but which might be confused with it, or offer interesting comparisons. They include a condition in which Butler found "posterior basin-like depressions" in the lamellar surfaces, but with the contour of the capsule appearing to be normal: for these he suggests the name "lenticonus internus".

Several writers have emphasized the distinction between the terms, *lenticonus*, and *lentiglobus*. There may be advantage in reserving *lentiglobus* for the "veritable" cases, while using *lenticonus* as a generic name for any abnormal backward protrusion of or on the lens surface, but I no longer regard the difference of mathematical form as very significant. The best formed examples are fairly exact segments of spheres: the 3 which I have examined differ in relative depth, but all are nearly perfect domes.

Before examining into the nature of this anomaly and the explanations that have been proposed, it might be well to review briefly the anatomy and embryology of the parts involved. For the ensuing description, I am chiefly indebted to Miss Mann, but also to Saltzmann, Druault, Vogt.

The lens, it will be remembered, is developed from the embryonal lens vesicle, which is itself formed by in-folding of the lens plate of the surface ectoderm. The posterior cells of the vesicle become the primitive lens fibers, and form the primary embryonic nucleus, occupying the central dark interval seen with the slit-lamp. The outer ends of these cells form fine fibrils that connect with the primary vitreous. Shortly after this, the lens capsule begins to form. Further growth of the lens is by formation of new fibers at the equator, which push their ends forward or backward under the capsule toward the poles. The cen-

tral primary nucleus is thus encircled by new fibers, which form the outer embryonic nucleus, and whose ends, as they join anteriorly and posteriorly, form the *Y* sutures. This process continues throughout life. At birth, each *Y* lies almost beneath the capsule, but as new layers continue to be formed, they come to lie more deeply. Hence it follows that defects situated outside the embryonic nucleus cannot be congenital, but post-natal defects may be developmental: on the other hand, disturbance of the embryonic layers need not be congenital, but may be due to causes arising in later life.

Vogt accepts the view that the lens fiber is, in fact, a minute flexible tubule, with fluid content which shifts back and forth under pressure, so producing the change of form in the fiber, and in the lens as a whole, necessary for accommodation. Druault states that in the region of the poles, between the capsule and the fibers, there is a collection of albuminous liquid called the subcapsular layer, which also spreads between the branches of the suture stars; the amorphous substance of the lens.

In a study of lenticonus, special consideration must be given to the lens capsule. This is a structureless membrane, the product of cell activity, and is not, itself, composed of cells or their processes. The site of the area of minimum thickness of the capsule is so constantly at the posterior pole, according to Saltzmann, that it is valuable as a landmark in microscopic study. Its zone of maximum thickness lies a short distance within the line of attachment of the zonule and the capsulo-hyaloid ligament. The adult capsule is a homogeneous, structureless, elastic membrane, highly refractive, very firm, and resistant to chemical and pathologic influences. Its elasticity has been experimentally proved by Druault, who found that it would eject water after distension.

For understanding certain theories of posterior lenticonus, the anatomy of the anterior vitreous is also necessary. The consensus of most recent opinion seems to be as follows: The anterior surface of the vitreous is limited by a delicate pellicle, called by some the hyaloid membrane, though others dispute the

title rather than the fact. This membrane lies in close apposition to the lens capsule, but is separated from it by a capillary space, containing a thin layer of fluid. About 1 mm. behind this anterior vitreous surface is the curtain seen with the slit-lamp, sometimes called the front curtain of the vitreous: it is simply the line of union between the close-meshed secondary vitreous and the looser-meshed primary vitreous, its backward projection forming the hyaloid canal of Cloquet, the wall of the canal being continuous with the "curtain", into which it is inserted, as Miss Mann has shown. Through it, the hyaloid artery passed, and the remains of this vessel may be seen with the slit-lamp, normally somewhat nasally from the pole and slightly below, as Vogt has demonstrated. The arc line seen with the slit-lamp is about 1 mm. in radius, and commonly envelopes the hyaloid-vessel-remains more or less completely. Vogt regards it as representing the anterior end of the hyaloid canal: Miss Mann, however, says it represents the circle within which the branches of the artery reach the lens in the third fetal month, and *not* the final stage of Cloquet's canal. Kirby adds that the vessel remains are attached to the anterior hyaloid membrane, and not to the lens capsule.

Various theories have been advanced to explain this anomaly, all necessarily speculative to a greater or less degree, as the early stages have never been recognized nor the process itself observed. Anatomic evidence is lacking, for those cases microscopically reported are rejected by clinicians as describing an entirely different condition, and no clinically observed case has yet been studied in section.

It would seem elementary that the causation of any condition should be discussed in its simplest terms, and the explanation sought in the type form, not in the complications. And none of the many explanations which are based on opacity or other defect of the capsule or lens substance, or changes in the nucleus or vitreous, explain the primary type—the transparent hemisphere, with intact capsule, on an otherwise normal lens. We must explain this phenomenon, before we begin to account for the atypical or complicated cases.

Traction by the hyaloid artery at the pole, if it could be shown to occur, might account for everything but the shape, for a pull from behind could never produce a hemisphere. But there is no reason to suppose that sufficient traction could ever be exerted in this way. The artery breaks and disappears at its hinder end while the branches are still enmeshed in the *tunica vasculosa lentis*, and no posterior lenticonus has been described with a complete persistent hyaloid artery. If the hyaloid remains are attached to the anterior vitreous layer, and not to the lens, it could not exert traction in any event. Most important of all, the normal hyaloid attachment is outside the globus area, so Vogt has no hesitation in saying: "Today it may at least be considered as established that lenticonus is not, in general, produced by a pull from behind."

The theory of a hernia of lens substance within intact capsule remains to be considered. For such a hernia to result in a transparent hemispherical protrusion, the following factors are mechanically essential: a thinned or weakened but intact capsule; a supporting ring to form the margin; a contained mass sufficiently plastic to occupy the bulge without losing its lucidity; and pressure sufficient to produce displacement. In the absence of any of these factors, either no change would take place, or one of a different character.

It appears to be generally held, at present, that the defect is congenital in origin, or at latest, very early post-natal, but within this range opinions differ. The assumption of congenital origin is based on the general nature of the defect and the involvement of the deeper layers in certain cases. But we have already learned that location has only a negative value as an index of age, and I have found no report of veritable lenticonus in a child under 6 years. So the period of formation must be left open, as undetermined and perhaps varying.

Taking up the individual factors as given, we find the hypothesis of a weakened capsule generally accepted. For the causes of weakening, we are forced back upon speculation. Interference with nutrition, through defect of the vascular tunic, has been mentioned.

Formation of cataract has been suggested as a source of weakness, but Vogt points out that, as between bulge and cataract, it is impossible to say which is the cause and which the effect.

Granted a yielding capsule, a confining ring is necessary, to give a sharply defined segment: otherwise there would be a general curved swelling. As to its nature, we are again driven to speculation: none has ever been seen. In the description of my case, the transparent and optically structureless character of the margin is emphasized, as well as its sharpness. The same is true of the illustration of Vogt's second case. We may imagine that the zone of maximum capsular thickness has been somehow contracted from a normal diameter of 7 mm. to about 2 mm. Vogt, who regards the arc-line as the anterior end of the hyaloid canal, thinks that this line and the canal may have a definite relation to the etiology of lenticonus. Colombo made a similar suggestion.

Next as to fluid or plastic contents. The lens, we recall, consists of flexible fibers and a small amount of liquid, which collects especially at the pole. If pressure is applied, this liquid would act as a dilator bag, pushing out the yielding capsule. This process being intermittently repeated, the capsule would stretch and slacken, and the ends of the newly growing fibers would be crowded into the bulge thus formed. If the process of stretching and separation of the fibers continued, we might begin to see evidence of internal stress, separation of sutures and lamellar surfaces, and loose fiber ends as suggested in the drawings of Reese, and, still later, clouding and opacities, as pictured by Butler and Tyson. These phenomena would thus appear as secondary effects of the lentiglobus formation, rather than as factors in its origin.

We come now to the final essential factor, the source of the pressure required to force out the contents of the lens. Vogt ascribes this rôle to the elastic tension of the capsule itself, acting as in accommodation, according to the later form of the Helmholtz theory. This hypothesis is reasonable, and is, on the whole, the most plausible so far put forward.

if it agrees with the facts. But doubt arises whether the lens capsule has actually sufficient elastic strength, its elastic power being a subject of considerable dispute.

A short digression at this point may be helpful. At the opposite pole of the lens is sometimes found the much rarer anomaly, lenticonus anterior. Kienecker has reported bilateral occurrence in a man aged 42, with a vague history of good sight in early life. The conus, somewhat flattened, protruded through the pupils into the anterior chamber, clear and readily transparent, the lens without opacity or other defect except the form. In discussing the origin, he bars out congenital defect, for lack of any change or scar in the nuclear layers, lens surface, or cornea: he refers to 2 cases reported to have arisen at puberty, and inclines strongly to the belief that they are all related to accommodative strain. Feigenbaum reported a similar finding in a 10 year old boy, which had definitely increased under observation through a period of 2 years. Duane likewise reported 2 cases of moderate anterior lenticonus, which increased several diopters under his care, the patients being 20-30 years of age. There is no recent report of a posterior lenticonus observed over a period of years, except Vogt's first, which is in a middle-aged patient, and complicated by cataract. My patient was seen at 9 years, and again at 20, but no adequate record was made the first time, and there was then no slit-lamp.

Has this any interest for us in our study of lenticonus posterior? It seems to me not only that it has, but that, taken in conjunction with our estimate of the theory of lental hernia, it has sufficient value to justify the proposition that lenticonus posterior is not essentially a congenital or developmental anomaly, but may be the result of accommodative strain, under unknown but favoring conditions, in the highly plastic lens of a young child. Anyone who has watched a baby focus on objects held in the fingers, before popping them into its mouth, can realize the amount of accommodative effort evoked.

This thesis has the weakness of resting not only on the still unproved hernia theory, but

also on another, which is yet far from winning the general acceptance of the profession, namely: Tscherning's theory of accommodation. The pull of the ciliary muscle on the capsule should be much greater than the elastic pull of the capsule itself: the simultaneous forward and outward pull on the vitreous at its "base" would draw it away from the center, and so lessen the resistance to lental protrusion at the pole. I admit I have no evidence in support of this theory, but I am by no means sure that evidence may not be found. This is not the place to go into the merits of the Helmholtz-Tscherning controversy, but a careful slit-lamp study of the changes, *if any*, in a lenticonus, anterior or posterior, of a young person, might throw light not only on the nature of lenticonus, but also on the Tscherning theory. Such a study might bear valuable fruit. Unfortunately, my patient is no longer available. In the meantime, it is interesting to know that every eye with lenticonus, whose refraction (outside the conus area) I have found, had appreciable hyperopia or astigmatism: in other words, was under direct stimulus to accommodation.

In conclusion, we must say that very much more will have to be learned about this condition before a definite statement can be made as to its nature, or even a definite classification established. The process of formation must be observed, particularly in the early stages; and clinically recorded cases must be studied in microscopic section. For full understanding, not only must the deformed lens be microscopically studied, but the entire eye, with the lentiglobus in situ. Meanwhile, every case discovered should be reported in detail, both as to the lentiglobus itself and all related complications.

DISCUSSION

Dr. S. Schulsinger (Newark): Dr. Marsh made a very thorough analysis of the cases of lenticonus posterior published so far and endeavors to get nearer to the etiology of this interesting condition. So far as I know, he is the first to discuss the accommodation as an etiologic factor, as the final link in the explanation of the formation of lenticonus posterior. It is not Dr. Marsh's fault, that any explanation today must be in a certain way of speculative nature, as we lack sufficient data which would definitely prove the time of

formation, and the different causes leading to it. It is therefore only natural that any explanation will arouse certain doubts and questions. To me too it seems obvious that we cannot make any definite conclusion as to the time of formation of the lenticonus simply from the localization of the anomaly. It is possible that the already formed layers of the lens may later on be drawn in into the formation of the globus, when the cause for it arises. So long as we have no direct observation we have no proof of its presence or absence at the time of birth.

I am approaching the main point—the strain of accommodation—and in reference to this point there arise in my mind certain questions.

As Dr. Marsh stated, most of the children with lenticonus have hyperopia, but that is the usual refraction with children. By far less children in general have emmetropic eyes, and very few are myopic. The children who do not accept any correction often have latent hyperopia. Even children who turn myopic in their tenth year, are in early childhood hypermetropic. That means that most children are under stimulus to accommodation. Why is the lenticonus then such a rare condition? Even Butler who doubts its scarcity has found this condition only in 5 cases among 500,000 patients, that means one case to 100,000 patients. That is certainly rare, provided even, that some cases escaped the diagnosis.

Second, why does the lenticonus almost never occur on both eyes? I know of only 2 cases, both Butler's, which were binocular. All the other cases were monocular. The refraction is usually the same on both eyes, and so is the stimulus to accommodation.

I would like to mention the later publication of I. Krasso from the Meller Clinic in Vienna, which appeared this year in the *Z. f. A.* The interesting feature in this case was, that only the inner part of the globus was cataractous. The outer sub-capsular part was clear. The cataractous part begins at the posterior surface of the fetal nucleus. Krasso explains this fact by stating that the tear in the capsule caused the clouding of the layers, which were at that time subcapsular, and that after the closure of the tear the abnormal mechanism of development persisted and the newly formed layers remained clear.

The patient was 6 years old. As to the time of formation of the lentiglobus, Krasso makes the conclusion from the localization at posterior surface of the fetal nucleus, that it started in the embryonic life. According to Marsh it does not have to be so. But the lentiglobus had to be formed before the formation of the outer cortical layers. Maybe a more thorough study of this case could give us a hint as to the time of formation, which apparently was early, if in postnatal life at all.

The 2 patients whom I have seen at the Beth Israel Hospital in Newark, do not disclose any new findings, except that in one in which the lentiglobus itself is perfectly clear, there is an interior embryonic cataract present, a condition by itself found quite often in otherwise normal eyes. I am planning to publish these 2 cases later.

I feel convinced that you will be interested in reading Dr. Marsh's printed paper, which is still more comprehensive than the one he has presented today. His classification seems to me particularly enlightening, his analysis very informative and instructive.

MESENCHYMOMA

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From the underlying pathology, one is able at times to detect certain biologic similarities between tumors of widely different origin and clinical course. Thus, certain carcinomas show such intense activity of proliferation that all sorts of bizarre cell types are evolved, having little, if any, resemblance to the parent type of adenocarcinoma or squamous cell carcinoma, as the case may be. These cells are of such a low order of biologic development that they resemble only each other, although of strikingly different origin.

In the group of tumors that trace their lineage to the primitive mesenchyme of the embryo—in other words, the group of sarcomas—a similar situation may exist. Because of the similarity between the so-called endotheliomyeloma of Ewing and other forms of extremely primitive sarcomas, such as angiosarcoma and some endotheliomas, I have found it convenient to group these together under the common designation, *mesenchymoma*; by which name, then, I mean a sarcoma of such primitive nature that only a more or less uniform cell type is present resembling embryonal undifferentiated mesenchyme, or at most differentiated only to the point of blood channel formation. In mesenchymoma, one does not expect to see cells resembling fibroblasts, nor cartilage, bone, muscle or fat, cells. In this category one finds Ewing's tumor, a tumor in which the cells are almost identical in all parts, primitive in appearance, with scanty cytoplasm, round or oval nuclei, and no intercellular substance. Such a tumor occurring elsewhere in a body would be called angiosarcoma, perithelioma, anaplastic sarcoma, etc., but the best term, I believe, would be *mesenchymoma*. Again, as above stated, the histologic structure gives the appearance of a polyhedral cell with clear cytoplasm, well-defined cell membrane, small pale nucleus and small multiple nucleoli, and

a complete absence of intercellular substance, in contradistinction to the structure found in epithelioma, for instance, which shows granules in the cytoplasm, prominent nuclei and large bulky acidophile nucleoli; and also in contradistinction to the ordinary types of sarcoma, where the cells show pleomorphism, granules in the cytoplasm, and considerable intercellular substance with tendencies to formation of connective tissue, cartilage or bone.

The most promising characteristics of Ewing's tumor, according to Ewing, Kolodny, Holmes, and others, are that it favors the smaller bones of the extremities and skull, and if in long bones, is seen in the shaft instead of the end and involves half or more of the bone. The process begins simultaneously in multiple foci, which gradually fuse and expand in all directions; the medullary canal, being extensively involved, goes on to dissolve the cancellous bone. The tumor cells having dissolved the cortex, the process spreads rapidly between the bony lamellae and pushes them apart, giving them the appearance of onion-like layers, with the proliferating material extending longitudinally, and also giving the bone the appearance of widening. This process is repeated until the resistance of the lamellae is gone. The cortex becomes completely rarified and diffusely dissolved. The tumor continues to approach the periosteum, which starts a process of reaction for protective purposes. A shell of new bone is developed outside the old periosteum. Soon, however, this also becomes penetrated, and the tumor cells infiltrate the surrounding soft tissues, sometimes producing rapidly necrotic liquefying material, simulating osteomyelitis. If the process is slow, one of the constant and striking features, according to Ewing, is a delicate, lacy, veil-like shadow in the soft tissues adjoining the affected area. A similar condition is noted after x-ray therapy has been instituted, and is considered a reparative phenomenon and characteristic of the disease. When small bones are involved, there is a tendency to replace preëxisting tissue with little or no increase in size of the bone, but with early perforation and development of bulky tumor process in the soft tissue. The bone

appears punched out near the articular margin, not involving the joint.

As above stated, one must differentiate Ewing's tumor mainly from chronic osteomyelitis, as well as osteogenic sarcoma, in long bones. There should be little difficulty, however, in ruling out osteogenic sarcoma, since this condition generally attacks the ends of the long bones and only a limited area of the bone, and produces a definite osteogenic reaction, with radiating spicules of bone at right angles to the longitudinal axis of the shaft; whereas Ewing's tumor attacks a larger portion of the shaft, causing an even distribution and absorption of bone, and, as the tumor grows, a definite widening of the shaft takes place. In osteomyelitis, the destruction of bone is more irregular; the reparative process is more marked; the periosteum is rather elevated than destroyed, and not perforated, as in Ewing's tumor. In the majority of cases of Ewing's tumor, a mass can be palpated, and in 1 out of 5 instances a swelling is the first symptom complained of. The tumor, on palpation, is totally immobile and continuous with the bone. The surface of the tumor ranges from rough and irregular to smooth. The skin overlying the bone appears free from involvement. In color, the tumor mass varies from grey to clay red, according to vascularity. If explored, some ulceration, with fungating growth, may protrude. Fever and heat may be present, and therefore simulate chronic osteomyelitis. In all these cases repeated palpation is of high importance; not only local palpation, but general, since Ewing's tumor characteristically is associated with enlargement of the regional lymph nodes, showing its neoplastic nature. Pulmonary metastases occur as a rule, but usually later than in osteogenic sarcoma. Other frequent sites of metastasis are the lymph glands, pleura, peritoneum and skull, and occasionally the clavicle and scapula.

Since Ewing's tumor is very vascular, it is subject to fluctuations in volume and size. Its growth varies—sometimes slow and then again rapid—due to variation in the blood supply of the vascular tissue. Hemorrhage and necrosis are frequent. Since it is not a bone-

forming new growth, it may be confused with benign cyst, a benign giant-cell tumor, or a periosteal fibrosarcoma. Although pathologic fractures are rare, they may occur, especially in weight-bearing bones.

It must be borne in mind that Ewing's tumor generally occurs in the young. About 50% of the cases are in persons under 20, and about 80% in persons under 30. Only occasionally does a case occur in a patient over 40. The individuals suffering from it often belong to a definite constitutional type, of delicate build, under-nourished, and with the characteristics of the so-called status lymphaticus type—blonde, fine, silky hair and delicate white skin. A history of trauma generally can be elicited and, in fact, is usually volunteered. Infection may be a concomitant condition. A low-grade chronic irritation may be found. Whether these are truly etiologic or merely coincidental cannot be proved; there may be a predisposition to tumor growth, with these other factors acting merely as precipitating causes. Ewing declares that a microbic cause is possible, for there is a close resemblance to osteomyelitis in histologic appearance, along with a rise in temperature. Antecedent local trauma is often present, just as in osteomyelitis, possibly acting to produce a favorable soil for development of micro-organisms already present in the tissues or blood stream, which then cause a proliferation of cells malignant in nature. However, this interesting possibility has never been proved.

The character of the x-ray picture depends on the stage and location of the tumor. If in long bones, one generally sees multiple areas of necrosis within the shaft early in the disease; at a later stage one sees a fusiform widening of the entire bone shaft, with separate parallel layers of bone formation, widening the cortex. The cortex is split into so-called "onion peel" formation, and can be detected by the careful observer. When the rate of tumor growth exceeds the rate of protective reaction by the periosteum, one can note perforations of the outer shell of bone

and soft tissue infiltration, having a lace-veil appearance. In the smaller bones, one generally sees multiple punched-out areas near the articulation, with separation of the joint space, due to spreading of the peri-articular tissues by the infiltrative process. Later, one sees bone destruction and necrosis, due to the characteristic osteolytic property of the tumor.

Having made a diagnosis, one must decide upon the best method of treatment. Although this is a malignant type of bone tumor, it is responsive to conservative treatment. Three methods are available: radiation by x-rays or radium; Coley's toxin treatment, and surgery. While heavy radiation suppresses the tumor and causes regression, the tumor will recur in many cases and will produce metastasis. The use of Coley's fluid may be combined with local radiation; this seems to enhance the possibility of ultimate recovery. If no improvement is noted after 6 or 8 weeks, recourse must be had to surgery. Amputation is employed if the tumor involves an extremity; otherwise resection, followed by prolonged toxin treatment, combined with radiation. With even ideal treatment, the results are not good. Geschickter declares that proper treatment offers slightly over 10% of chances of cure.

I should now like to present a case history: A school boy, 16, complained of pain in the left ankle and difficulty in walking ever since he sprained his ankle 14 months previously, while playing baseball. Five months before admission date, he noticed swelling of the left ankle. He was admitted to St. Peter's General Hospital, New Brunswick, April 27, 1931. X-ray examination revealed 3 or 4 punched-out areas of destruction in the tarsal scaphoid, near the articular margin, but not involving the joint space. The blood picture being negative and temperature range normal over a period of 1 week, sclerosing osteitis (Garre's disease) was suspected. A cast was applied and the patient sent home.

Two months later, he returned, complaining of more pain. When the cast was re-

moved, the swelling was found to be even greater. An x-ray film at this time showed the joint space to be considerably distended and the destruction in the distal half of the tarsal scaphoid marked. A biopsy was performed, and considerable hemorrhage was encountered and mahogany-colored, jelly-like tissue removed. Pathologically, the tumor was seen to be a very early primitive type of sarcoma, fulfilling the criteria of so-called endothelial myeloma of Ewing. Deep x-ray therapy was immediately instituted, with the result that the swelling, pain, and other symptoms at once became less marked, disappearing completely after the second treatment, 6 weeks later.

The patient remained well until November 29, 1931, 7 months after his first admission, and then was taken suddenly ill with lobar pneumonia. This was confirmed by x-ray, at which time it was noticed that there were multiple metastases in the lungs. After 3 weeks in bed, he had fully recovered from his pneumonia. It was then noted that the swelling in the foot had recurred, and x-ray therapy was resumed, the treatments now being given not only to the foot but also to the chest and the lower part of the left femur, where another area of metastasis was noted.

The patient was then sent home. The swelling of the foot increased. The patient now began to complain of considerable pain in the head, especially at the base of the neck, where a swelling was noted. This gradually grew worse, and pain radiated down the right arm. The patient had to be kept under the influence of morphine after February 15, 1932. About April 15, the pain in the foot was very severe, and an incision was made over the mass to relieve the tension and in this way the pain. An ulcerative fungating mass persisted at the site of incision, and gradually became necrotic. The patient's temperature range at this time was between 101°-103°. His condition gradually grew worse, and he died May 24. No autopsy was obtainable.

DISCUSSION

Dr. William Klein (New Brunswick): May I say in addition that in presenting this paper I was not attempting to describe something new; I was just trying to present classifications of entities we have recognized before but classified under the general term of *sarcoma*. I am doing this for the reason that I believe some of the nomenclature we have been using is misleading.

Under the term—*mesenchymoma*—I wanted to include all the tumors that are of a very primitive type, embryonal in nature, in all of which the cell types are alike and cannot be differentiated from one another except in so far as their location is concerned. As soon as you go beyond a point wherein you begin to differentiate cells from one another, such for instance as fibrous tissue from osseous structures, then you are no longer dealing with *mesenchymoma* but with definite clinical entities such as *fibrosarcomas* or *osteogenic sarcoma*.

Dr. K. Rothschild (New Brunswick): The tumors which Dr. Klein just described are extremely interesting from a number of viewpoints. It seems that there is lately a tendency to go back in the classification of tumors to an ultimate basic foundation. Instead of trying to increase the number of tumors, we rather try to establish principles and classify according to those principles. Today, Dr. Klein has tried to combine a number of names, melt them together into the conception of *mesenchymoma*. I, personally, would prefer the name—*mesothelioma*—because I feel it would come slightly closer to the real composition of those tumors, although this is just a difference in nomenclature and not in principle.

I had a little experience with another type of those tumors, and that is the reason why I am speaking in this section although I am a neurologist. I had occasion to deal with at least 2, possibly 3 cases of *medulloblastoma*. Here we find the same principle that Dr. Klein has evaluated this morning in a clearer presentation. In the case of *medulloblastoma*, although some authors still think we are really dealing with another form of *pinealoma*, it seems to be the general consensus of opinion that we can demonstrate the development of the tumor out of a very early embryonic cell, a cell that has been called by Bailey and Cushing a *medulloblast* because it is a cell from which the differentiation into *spongioblasts* and *neuroblasts* takes place. The reason they have accepted that theory is that in a few cases they had found *spongioblasts* as well as *neuroblasts* within the tumor; while in the average case there is a characteristic cell present which is rather round and shows mitoses, the type of the tumor is a compact epithelial mass with hardly any stroma. I have an example of this tumor upstairs in the Scientific Exhibit. I took one of the slides away, and if you will pass it around, you will clearly see the pathology of the tumor.

Another fact that puts those tumors in one class, like Dr. Klein's, is the fact that in these cases, also, a trauma is frequently provocative of the acute development of the tumor, although we must accept the old Cohnheim's theory that there is a predisposition (*anlage*) toward those tumors present from the start. In my case, the tumor started to grow after the boy had fallen while skating on the ice.

Another interesting feature that connects those 2 types of tumors is that both are rather sensitive

to radium and to x-rays. We know that in medulloblastoma we can actually attain a practical cure for a certain time. It seems that if we could succeed in giving x-rays to the whole spinal axis, we might succeed in eradicating the malignancy, although in most cases we have had metastasis with a final outcome.

These few words may show the general tendency of going back to fundamentals in the classification of tumors.

Dr. William Klein (New Brunswick): I might go over some of the points for purposes of emphasis. I would like to present the fact that all these tumors I classified under *mesenchymoma* are very primitive, of embryonal origin. When they attack bones, long or small, it makes no difference which, they always start in multiple areas and dissolve the cortex, being osteolytic in nature, and they are very prone to metastasize in contradistinction to some of the other tumors. Some of the most outstanding diagnostic points of the disease are that they metastasize so early and especially to the brain.

The other point is—no matter what you do for them, the outcome is always bad, although the first result after x-ray therapy is very good. They almost always disappear after the first treatment, but a recurrence always takes place.

VAGINAL DIPHTHERIA

Review of the Literature to Date and Report of a Case

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"In any case of vaginitis, especially in children, when gonorrhea can be ruled out, diphtheritic vaginitis should be considered as a second possibility", states Kobnak. Bacteriologic studies of vaginal secretions, with special reference to the diphtheroids and Klebs-Loeffler bacilli, have been made by various investigators, and have led to some rather interesting conclusions. In the so-called normal vaginas, Broer found Klebs-Loeffler bacilli in 23.3% of the cases, Lietz found them in 14.2%, and Wauschkunn in 5.5%. Lonne and Schugt found 45% of a series of 209 vaginal smears to contain spurious diphtheria bacilli.

A complete review of the literature to date reveals the fact that 115 cases of vaginal diphtheria have been reported, of which only 72 have been confirmed by bacteriologic studies.* Of the latter, 36 occurred in adults, of whom

31 were puerperal; 30 cases occurred in children; and in 6 cases the age is not mentioned. It was found to be primary in the vagina in 52 cases, while in 14 it was secondary to diphtheria elsewhere. There was a mortality of 19.7% for the entire group. Of the children, 8 (16.67%) died; 5 of the adults died (13.89%). It is interesting to note that of these 5 adults, 3 were puerperal while 2 were non-puerperal.

I should like to report another case of diphtheritic vaginitis, not only because it is an apparently unusual condition, but also because I am certain that many cases of so-called "non-specific" vaginitis are in reality due to the Klebs-Loeffler bacillus. Of course, in any case where this is discovered to be so, specific therapy can be instituted quite early, thus reducing the mortality to a slight extent and the morbidity to a greater degree. In the light of the recent work of Broer, Lietz, Wauschkunn, Lonne, Schugt and Kobnak on the bacteriology of vaginal discharges, it is quite evident that in those cases of vaginitis in which gonorrhea can be definitely ruled out, routine search for the diphtheria bacilli would undoubtedly remove many cases from the "non-specific vaginitis" group to the "diphtheritic vaginitis" group.

REPORT OF CASE

The patient was a white woman, 20 years of age, admitted to the contagious pavilion of the University of Michigan Hospital on October 15, 1930, the fifth day of her illness, with a diagnosis of toxic diphtheria. No history of contact. She was perfectly well until October 10, when she complained of general malaise and sore throat, and had a fever with temperature running as high as 102°. That evening she went to see a physician, who made a tentative diagnosis of quinsy and prescribed

* (Since writing this paper, an article by Lee and Van Saun on "Primary Diphtheric Vaginitis in Children" appeared in the June 1932 issue of the Journal of the Medical Society of New Jersey, in which 6 additional cases of diphtheric vaginitis in children are referred to. Bisdorn in 1927 reported 3 cases in 3 sisters—virulence tests made in only 1. Mason reported a case in 1927—no virulence test. Vasile reported a case in 1924—virulence test not mentioned. Lee and Van Saun report an additional case.)

gargles. The following day she was taken to another physician, inasmuch as it was obvious that her condition was rapidly becoming worse. A clinical diagnosis of diphtheria was made. Direct smears and cultures were immediately taken and, as Klebs-Loeffler bacilli were found, 20,000 units of diphtheria anti-toxin were at once given intramuscularly. Her condition did not improve, so the following evening, October 12, she was given another 40,000 units intramuscularly. This same day it was noted that the glands in her neck were becoming visibly enlarged and painful. She was rapidly becoming more toxic and weaker. Meanwhile, she had begun to menstruate the day before, and it was noted by her sister that her vulva and perineum were unusually red, swollen and excoriated. She failed to react favorably to the 60,000 units of diphtheria antitoxin, so it was thought advisable to admit her to the hospital; this being the fifth day following the first appearance of symptoms.

Physical examination on admission revealed an acutely ill and toxic patient, with a peculiar "washed-out" appearance, and an acne-like eruption on her face. Eyes were somewhat sunken, otherwise negative. Anterior nares were filled with a greenish, creamy exudate. No excoriation of the lip. Throat: All mucous membranes were markedly injected; posterior pharyngeal wall was covered by a thick, very tenacious and viscid greenish exudate, but there was no membrane; fauces injected and edematous, much more marked on right side; a dirty, greenish-gray membrane on mesial surface of right tonsil. When attempts to remove this membrane were made, a raw, bleeding surface was produced. Soft palate and uvula did not move during deglutition nor when gag reflex was elicited. Uvula deviated markedly to right. Tongue was quite thick, moderately coated, and markedly injected about the margins. There was a coarse tremor but no deviation when tongue was protruded. Neck: Submaxillary, anterior and posterior cervical nodes were palpably enlarged on left and visibly enlarged to a moderate degree on right. Normal venous pulsation was markedly accentuated. Chest: Examination was not quite satisfactory on account of poor condi-

tion of patient. Movements were rapid and shallow, but apparently free and equal. Slight impairment of resonance over both bases in axillary line and posteriorly. A moderate number of medium crackling râles were heard over these areas, more especially on right side. Heart: Area of cardiac dullness was not enlarged. Both sounds were accentuated and booming in character. First sound at apex was reduplicated. Occasional extra systoles. No murmurs. Abdomen: Tenderness over entire abdomen, but more especially over right upper quadrant. Liver margin was palpable 3 finger-breadths below costal margin. No evidence of ascites. Extremities: No edema and no skin eruptions. Neurologic examination: Unsatisfactory because of inability of patient to coöperate. No pathologic reflexes elicited. Paralysis of soft palate and uvula. Vaginal examination: Patient was still menstruating. Marked degree of redness, with some excoriation and edema of skin and mucosa of entire labia majorae, pubic region, and especially perineum, extending from inferior angle of vaginal orifice up to and apparently into anal orifice. Direct smears of a fragment of this membrane revealed many typical Klebs-Loeffler bacilli.

Impression on admission was that this was a case of (1) toxic diphtheria with marked edema of the right fauces and paralysis of the soft palate and uvula; (2) diphtheritic myocarditis with decompensation and passive congestion of the liver and lungs; and (3) diphtheritic vaginitis, vulvitis and possibly proctitis.

The patient was given 60,000 units of diphtheria antitoxin intravenously immediately on admission, making a total of 120,000 units in 5 days. She was given daily infusions of 35% glucose intravenously, in amounts varying from 250 to 500 c.c. Her condition continued to grow worse and on October 18, the eighth day of the disease, she began to vomit. Her heart sounds were becoming poorer in quality, but the rhythm was still quite regular except for an occasional extra systole. Râles over both bases were still heard, more marked on the right. There was no evidence of fluid in either pleural sac at this time. X-ray showed

a right lung field suggestive of bronchopneumonia. Patient became more toxic and delirious.

The diphtheritic lesions of the fauces, vagina and perineum were treated vigorously, by means of irrigations every 4 hours with hot saline, and application of 25% argyrol twice daily. They cleared up well as a result of this treatment, so that for 8 days previous to death, cultures of the nose, throat and vagina were negative for Klebs-Loeffler bacilli.

For 5 days prior to death, patient was incontinent of urine and feces. Temperature rose and fluctuated between 102° and 105°. Pulse rate also increased, varying between 160 and 180 per minute. Toxic symptoms and delirium increased. On October 21, the eleventh day of the disease, evidence of fluid was obtained from the right chest. All the symptoms were becoming rapidly worse, and the patient died on the eighteenth day of the disease.

A summary of the daily smears and cultures taken from her nose, throat and vagina which were examined for Klebs-Loeffler bacilli revealed the fact that for 8 days before her death the nasopharynx was free of diphtheria bacilli, and for 6 days before death her vagina was free of them.

A complete autopsy was performed, and the following were the chief pertinent pathologic findings: (1) Diphtheria, pharyngeal and vaginal; (2) pyothorax, right; (3) multiple subpleural abscesses over both lungs; (4) early lung abscess in right lung; (5) atelectasis of right lung; (6) purulent bronchitis; (7) terminal right-sided cardiac failure; (8) Zenker's necrosis of myocardium; (9) sub-endocardial fatty degenerative infiltration; (10) necrotic ulcer in right tonsil; (11) granular vaginitis; (12) diphtheritic endometritis; (13) purulent salpingitis.

DISCUSSION AND CONCLUSIONS

This is an exceedingly unusual and interesting case from several points of view in addition to the diphtheria of the vagina. Klebs-Loeffler bacilli were recovered from the patient's blood 9 days prior to her death, and were found in some of the internal organs at

autopsy (diphtheritic septicemia has been reported in a few cases but is exceedingly rare). The pleural and pulmonary complications of diphtheria are well illustrated, as is the association of Klebs-Loeffler bacilli with other organisms acting as secondary invaders.

A review of the literature on diphtheric vaginitis reveals certain interesting facts. Tabulation and analysis of the statistics obtained as a result of this review leads to a number of significant conclusions:

(1) Vaginal diphtheria is apparently uncommon. It occurs more often in adults than in children; it is rare in virginal adults, occurring most frequently in those women who have recently been delivered.

(2) It is often secondary to clinical diphtheria elsewhere, but may be, and frequently is, primary in the vagina.

(3) Prognosis in adults is slightly better than in children.

(4) Diphtheroids and Klebs-Loeffler bacilli are apparently normal inhabitants of the vagina in many cases.

(5) In every case of vaginal discharge, if a definite diagnosis of gonorrhea cannot be made, diphtheria should be ruled out before the condition is labeled "non-specific" vaginitis.

(6) A definite diagnosis of diphtheria cannot be made without bacteriologic studies and, often, virulence tests are necessary.

(7) In cases of vaginal diphtheria, the urine, and perhaps the feces, may act as prolific sources of infection. The excreta in these cases should be disinfected as in cases of typhoid fever. The urine and feces may wash off and mix with the diphtheritic membrane and exudate, and thus may really contain quite a number of virulent Klebs-Loeffler bacilli.

Diphtheritic vaginitis may occur at any age, the youngest patient being reported by Vucetic in a child 5 months of age, who died of heart failure due to toxemia. The oldest patient was a woman aged 55, reported by Salmon. She also died. Duration of the disease varies from 1-4 weeks, as a rule, but may continue for as long as 5 months (case of Van Saun).

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MATERNAL MORBIDITY AND MORTALITY

In the "Official Transactions" of the State Society's recent Annual Meeting, published as a supplement to the September Journal, one may find the report of a special committee under the chairmanship of Dr. Bingham, and it is hoped that all members who can will render such aid as is possible, through their respective County Medical Society sub-committees, in the effort to improve obstetric conditions now existing. Dr. Bingham had done an excellent piece of work in Essex County before President Hagerty induced him to expand and try to apply his methods to the entire state. It required most of the past year to set up the machinery in our 21 counties, but by June most of the preliminary work had been performed and we may expect the investigation and study of local conditions to get under way now as vacations end and the usual autumnal resumption of work begins.

The main obstetric problems are not entirely local, however, as may readily be seen by comparing the published statistics of other countries.

It fell to our lot this summer to go pretty direct from this State Society's Convention in Atlantic City, to the British Medical Association's Centenary celebration in London, and one of the interesting facts first noted was the similarity of subjects under consideration; a fact which applied not only to the program of scientific sessions but to economic measures in the business transactions, and to per-

sonal conversations. For example, it was a news-paper item which attracted our attention to the topic of maternal mortality; and a *yellow news-paper* at that.

One of the *small pleasures* of our European vacations has been always the privilege of reading daily the London Times; it being, in our opinion, the best of all news-papers. In consequence of that habit, though we knew that the *Hearst type* of news-paper had invaded London we held no personal acquaintance with such dailies until, on August 7, our eyes fell upon the headlines of the Sunday Express: "The Massacre of Mothers By James Douglas." At first glance, one might think that James was a wholesale murderer, but presentation of such a statement was not the intent of the printer.

In his first paragraph, James said: "This article is going to be a shocking article. If I can put enough vitriol in my ink, it will be the most shocking article I have ever written." Well, James was either entirely out of vitriol or he has never written anything shocking, for, there is nothing more shocking than the paragraph just quoted, in his entire 3 *column spread*, and we refer to this article for the purpose, mainly, of showing that *yellow journalism* is the same in Europe as in these United States, as regards medicine. We do, however, owe him thanks for one thing; i. e., it was from him we learned that a Commission appointed by the Ministry of Health about 4 years ago had just published its report, and from that official document the following information had been gleaned by the

Times, from which we made the following abstract; incidentally, italicizing some words for the purpose of emphasizing a quoted statement.

The most important finding of the Departmental Committee on Maternal Mortality and Morbidity, whose final report was issued recently, is that *infection from the mouths and noses of those in attendance constitutes a serious danger and ought to be prevented by the use of masks* similar to those worn by surgeons. This is a simple precaution and one which will quickly become universal if employed at once by a few prominent obstetricians. There is no reason why it should not be employed, and *patients have the right to demand it*. The report speaks of the accumulating evidence of the danger of droplet infection. It supports its claim, that at least half of the deaths now taking place in childbed are preventable, by reference to the mortality figures for England and Wales and for the Netherlands. The maternal death rate in England and Wales has not fallen below 4 per 1000 living births during the past 5 years. In the Netherlands the rate has not risen above 3.3. During the 5 year period 1925-29 the average rates were, respectively, 4.2 and 2.97. Puerperal sepsis was the cause of death of 166 women per 100,000 live-births in England and Wales during the 5 year period 1925-29; the corresponding rate in the Netherlands was 99.

The Committee repeats its plea for the better training of midwives, for more careful pre-natal supervision, and for extended hospital accommodation, and urges the importance of routine medical examinations periodically repeated; and expresses the view that nurses and midwives should be taught to use certain simple diagnostic methods, like determination of blood-pressure. By these means dangers existing before childbed would be recognized and provided against; and thus a fruitful source of calamity removed. The occasion of birth, it is urged, should be attended by a discipline similar to that obtaining in a modern operating room. It should be known to all that talking and unnecessary movements increase danger by spreading infection; doctors, midwives, and attendants ought to feel themselves bound in honor to abstain from

any kind of behavior which might conceivably add to the existing risk. None will dispute the wisdom or justice of these recommendations. The expectant mother deserves the best that the science of medicine can give her, and this includes instruction in diet and personal hygiene. The doctor in whose charge she has placed herself deserves that his burden of responsibility shall not be increased wantonly by uninstructed or insufficiently disciplined helpers. It may be that the Committee attaches too little importance to instances in which infection arises within the body of the patient herself. Such cases, in the opinion of many competent practitioners, do exist, and injustice is apt to be done if this fact is not kept constantly in mind.

CONTINUING INCREASE OF AUTOMOBILE FATALITIES

Though we have said little about it recently, our interest in the automobile as a death-dealing instrument has not abated one single iota and, as time passes and the number of killings increases, we feel more and more strongly that something should be done to *limit*, if we cannot entirely *prevent*, the steadily increasing number of fatalities annually resulting from automobile accidents—or *so-called accidents*. In our opinion, the word—*accident*—is misused, about 9 times out of 10, in the reporting or registration of deaths occasioned by automobiles in the hands of incompetent or irresponsible drivers.

The Welfare Committee, having this subject under consideration, adopted the recommendations of a sub-committee embracing a plan which called for a more extensive and more thorough examination of applicants for a driver's license, but the State's officer having such matters in charge turned a deaf ear to our pleadings. He is possessed of the power, and needs no further legislation to put into effect the plan proposed, but he feels—and we realize the probable correctness of his estimate—that public sentiment is not sufficiently strong to support him against the *business opposition* which would certainly be

aroused. It would seem only reasonable to refuse a driver's license to an applicant, on the basis of poor vision, deafness, liability to epileptic seizures, or any physical or mental defect which might at some critical moment render such a driver incompetent, or unable with sufficient promptness, to manage his car. Yes! That proposition *is reasonable*, but each applicant for a driver's license is a *potential purchaser* of an automobile, and we can readily appreciate the predicament of that State's officer who would dare to promulgate such a rule, when the salesmen, and agencies, and manufacturers of automobiles should bring to bear upon him their combined "high pressure salesmanship" converted for the moment into energy of a destructive type. Human life is held cheaply these days! A semi-idiot, with a chauffeur's license in his pocket and the steering-wheel of a Juggernaut in his hands, may run down and kill a feeble old man or woman, or a care-free child innocent of even the knowledge that danger lurks on the highway, or—such a driver is no respecter of persons—may kill or cripple the most important citizen in the state. *What of it? Another car has been sold!* A human being has been killed—murdered, one might say—but business records in the Chamber of Commerce will show—by way of recompense (?)—that "car sales indicated a gain of 1 over the previous month". Shall we mourn or rejoice?

The President of the United States, ably supported by the Secretary of State, numerous ambassadors to foreign countries, and several special commissions, all have been engaged more or less constantly for the past 10 years in efforts to abolish war; and doing that for the reason, mainly, that *war is so destructive of human life*. And yet, at the very same time in the city of Washington and in the cities and states from which those statesmen come, and where they ordinarily live, automobile drivers are killing, each year, more of our people than did the World War—and these great statesmen *do nothing* about it; *say nothing* about it; *apparently, know nothing* about it.

As a matter of fact, the question of war is of no immediate concern. In so far as the

United States is concerned, the last war ended in 1918, and there is no probability of another starting soon; but automobile slayings continue, and the number slain increases regularly at the rate of 10% per annum.

In so far as citizens of the United States are concerned, during each of the years 1930 and 1931, the total number of U. S. citizens killed per annum, or the average number killed per month, by automobiles, was greater than the numbers killed in the World War for corresponding periods of time. What a hollow mockery, for a nation's government to be so exercised over an improbable war, while the main streets of our cities and the most traveled roads in our country, are more dangerous than were the battlefields of the most destructive war in all history.

As explained, the plan recommended by this Society, as a contribution toward diminishing, at least, the number of killings, has not yet been accepted. It will be in the course of time. Meanwhile we had heard of no other suggestion until a few weeks ago. In the London Times of August 5, 1932, a letter to the Editor, signed—R. Ferguson—presented a suggestion which appears worthy of consideration, and we shall quote therefrom. He is speaking of conditions in England, and mainly concerning persons unfit to hold a driver's license: "Under present regulations, any person of 17 years of age or over who considers himself able to drive a car may buy a driving license for 5 shillings and proceed to drive through the busiest streets of London. He may know nothing of the habits of pedestrians from the motorist's point of view; he need know nothing of traffic signals. All that wealth of knowledge acquired by the experienced driver, much of which can be imparted by a few hours of intelligent instruction, is a closed book to him. Furthermore, he can obtain an insurance covering damage to his car and third party risks at the rate payable by experienced drivers (excluding the 'no-claims' bonus).

"Here then we have a person placing at hazard the limbs and lives of other road users, the property of other car owners, and at the same time increasing the insurance risks which

in the long run determine the rates which all motor insurers have to pay. It would appear as though a check on such a possibility would be an elementary precaution from everybody's point of view, but it would perhaps be unwise to attempt any general form of compulsory examination of all applicants for driving licenses at any near date. It should be possible, however, to gauge the effect of driving examinations under police or other suitable control without involving any real hardship to motorists in general.

"I would suggest that early arrangements be made to issue a Ministry of Transport manual of instruction in motor driving, dealing in practical form with every aspect of the subject, and that preparations be made to carry out tests for a new form of Class 'A' driving license, such tests to include the actual handling of a car and an oral examination on the subject matter of the manual. These tests should be free of charge to the person concerned, and upon qualification the Class 'A' license could be issued at 5s., renewable yearly at the same figure. There would also be a Class 'B' license to be issued under the terms of the present driving license, without examination but at a charge of £1, renewable at that figure yearly. There would thus be a monetary incentive to procure a Class 'A' license, and the extra revenue from Class 'B' licenses should help to defray the cost of the examination of those wishing to obtain the 'A' license. I would recommend further that no person holding a 'B' license should be allowed to drive any trade vehicle or hackney carriage, or be allowed to serve as a paid driver.

Under such a scheme both the Ministry of Transport (or police) and the insurance companies would be able to compile statistics showing the numbers of accidents involving drivers holding the two forms of licenses, the former with a view to extending the scheme if found desirable, the latter with the object of assessing premiums for the insurance of the two classifications of drivers on the basis that would be in fair ratio to the ascertained risks involved."

Special Article

THE MEDICAL SOCIETY OF NEW JERSEY VS. LEGISLATIVE ORGANIZATIONS

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In 1664, the Duke of York received from his brother, Charles II, King of England, a grant of territory over which the latter had acquired sovereignty by defeating the Dutch in a short but decisive war sprung upon England at a moment when the fighting forces of Holland were feeling a bit too "cocky" and were careless in estimating the strength and preparedness of similar forces at the command of John Bull. The Duke almost immediately disposed of that portion of his "grant", which is now known as New Jersey, by selling it to John Lord Berkeley and Sir George Carteret. The purchasers sent a representative, Philip Carteret, to serve as Governor over a host of accompanying colonists, with Elizabethtown as the site of his capital. Colonization progressed apace, so that, in the course of 4 years, the population numbered 3000, and 4 years later, nearly twice that number in the eastern (or northern) half alone; i. e., that portion northward of a line drawn horizontally through latitude 41° 41', which means, practically, through the city of Trenton.

On May 26, 1668, almost exactly 200 years in advance of my own birthday, and mayhap prophetic thereof—since even then it was understood that "coming events cast their shadow before"—there occurred at Elizabeth something noteworthy; the opening of our first legislative Assembly. In that assemblage, the towns of Bergen, Newark, Woodbridge, Middletown and Shrewsbury, were represented. Furthermore, it is rather better than an even chance that some of those representatives were classed among the *medicine men* of that period, for we know that ever since organizations of that character were first established, in this region at least, there has rarely been an Assembly, local or national, without one or more physician-members.

It can scarcely be considered amiss if, at this juncture, inasmuch as we are to discuss the relations existing between physicians and legislatures, it should be said that one can not delve deeply into the history of New Jersey without discovering that her physicians have not merely performed their duties as guardians of her people's health, but have played an

important part in all affairs pertaining to public welfare in general.

In the matter of legislation, and especially with reference to the task of paving the way for, and then organizing, a new form of government, we are informed by our historian* that, through the Revolutionary War and its following period of constructive work necessary to the establishment of an independent state, physicians—in point of relative numbers, in public positions filled satisfactorily, and in breadth of knowledge—were favorably out of proportion to any other professional or business groups. With permission, we present some of her comments upon the educational equipment and the political service of New Jersey's pioneer physicians.

"A large proportion of the New Jersey physicians who took an active part in the Revolution were equally active in the decade or two thereafter. This post-war period demanded not so much the usual governmental reconstructive work, as it did constructive work, because the States and Union were no longer associated with Great Britain but had to learn to function independently. An entire administrative structure had to be created and organized—a task requiring the efforts of the best minds available. The keynote of this period in New Jersey medicine is struck by the prominent part taken by members of the profession in this task of creation and organization.

When we realize that the doctors then in their prime were of necessity fine types to start with (since it must have been more the desire to help humanity than the thought of monetary gain which moved them to choose medicine as a career at a time when it offered little gain in a pecuniary sense); when we realize, too, that their educations were above the contemporaneous average, and were augmented by unusual Revolutionary training and contacts—we understand more clearly why they would inevitably appear in the foreground of public affairs in this particular era. As a natural consequence of their public activity—plus the strong contributory factor that their own standards had risen to an exacting level—the turn of the century was to find the medical profession in New Jersey entrenched in that high esteem which it has ever since retained in the eyes of thinking men and women.

From the roster of physicians who served the Nation during the War, and the newly set-up State in its early days, we learn that

the following named were members of the Legislature or of Congress, or of both:

Moses Bloomfield, William Burnet, Sr., John Beatty, John Condit, William Campfield, Samuel Dick, Jonathan Elmer, Ebenezer Elmer, Thomas Ewing, Melancthon Freeman, Jacob Green, Thomas Henderson, Samuel Kennedy, Bodo Otto, Jr., Nathaniel Scudder, John Anderson Scudder, Jonathan Ford Morris and Isaac Smith.

These men were members of the Provincial Congress which resolved to support the Declaration of Independence; of the committee which, in June 1776, drafted the Constitution of the new State of New Jersey (Jacob Green was Chairman and his 10 associates included Jonathan Elmer and Samuel Dick); of the Provincial Congress which adopted this constitution; of the Continental Congress which adopted the Articles of Confederation in 1778; of the Continental Congresses which handled the difficulties of making peace; of the Continental Congress which in 1787 adopted the present Federal Constitution; of 4 of the first Congresses under that constitution between 1789 and 1800; and of the State Legislature which in 1789 approved the first 10 amendments. Except in 1774-5, 1786 and 1789, the Continental Congress was never without at least 1 New Jersey physician-member, usually having 2 or 3 such members; 4 of the first 6 Congresses under the new Constitution (1789 to 1801) had 1 or 2 New Jersey physician-members; the Legislature was seldom without a physician-member during the 24 years from 1776 to 1800, usually having 2, 3 or 4, and once (1780) as many as 6. Many of these doctors also held other prominent offices, such as Secretary of State, Speaker of the Assembly, Vice-President of the Council, or Justice of the Supreme Court. Others, while not in Congress or the Legislature, were prominent as writers, professors at Columbia, Princeton or the University of Pennsylvania, Director of a Mint, Judges, and the like. This list includes also: Oliver Barnet, John Cochran, Charles McKnight, John Maclean, Paul Miclieau, John de Normandie, Jonathan Odell, Robert Patterson, Henry Schenck, and James Stratton.

It is significant that of the first group, of 18 men, 13 were educated at colleges or universities, and 13 participated in the Revolution. Of the total of 28 physicians, 17 are known to have received good educations, and 18 were engaged in the Revolution. The majority of these doctors belonged to the New Jersey Medical Society, 9 serving as President."

If this portrait properly depicts the New

* (Who is, and has been for almost 3 years past, engaged in writing a comprehensive history of medicine in New Jersey.)

Jersey physician characteristic of that period, what about his associates—the men with whom he had to deal—especially in legislative halls?

In the first place, there seems to have existed then, as in all other time-periods before and after, a number of physicians forming the lower ranks of the profession—the fringe, we may call it, of recognized practitioners—whose learning, skill, and moral standing were below the standard here given; and there existed also a considerable number of so-called healers or medical practitioners such as we know under the less euphonious names of *quacks* or *charlatans*. The portraits of typical members of both these groups have also been painted for us by Dr. William Douglass, an English physician who settled in Boston in 1718:

"In our plantations, a practitioner, bold, rash, impudent, a liar, basely born and educated, has much the advantage of an honest, cautious, modest gentleman. In general, the physical practice in our colonies is so perniciously bad, that excepting in surgery, and some very acute cases, it is better to let nature under a proper regimen take her course than to trust to the honesty and sagacity of the practitioner. * * * Frequently there is more danger from the physician, than from the distemper; a country where the medical practice is very irregular, is a good school to learn the laudentia, a good article in practice; but sometimes notwithstanding of male practice, nature gets the better of the doctor and the patient recovers. * * * Our practitioners deal much in quackery, and quackish medicines, as requiring no labor of thought or composition; they follow Sydenham too much in giving paregoricks, after catharticks, which is *playing fast and loose*."

Dr. Douglass, when speaking thus, may have been prejudiced, to a certain extent, at any rate, as Americans occasionally are in other countries than their own; so, we present another, though but little more favorable, portrait by another member of the profession. Dr. Alexander Hamilton, Scotch born and educated abroad, settled in Annapolis, Maryland, where, incidentally, in the capacity of preceptor, he started Dr. Thomas Bond on the road to fame, as Founder of the Philadelphia Hospital. In 1744 failing health necessitated a change of scene and occupation, so he decided to travel to New England, via New Jersey. He kept a diary of his experiences, which reveals a man of cultured intelligence, high medical standards and an interest in the state of practice throughout the colonies. This diary is more entertaining than many a novel, while its medical slant gives it an additional

interest for doctors. Naturally, only a few particularly pertinent extracts can be given here.

Hamilton's route through our state was via Delaware ferry to Trenton; thence to Princetown, "a small village"; Kingstown, "another small village"; Brunswick, "a neat small city"; Amboy, "a seaport, having a good harbour, but small trade"; and Staten Island. Returning, he ferried from New York to Elizabethtown Point (Elizabethport?); to Elizabeth; Woodbridge; Piscataway (Piscataway); Raritan ferry; Brunswick; Kingstown; Princetown; Trenton; and thence by ferry to Bristol, opposite Burlington.

At Trenton, he tells us: "I put up at one Elijah Bond's—at the sign of the Wheat Sheaf. Two gentlemen of the town came there, and invited me into their company. One was named Cadwaller (Thomas Cadwalader) a doctor in the place, and, as I understood, a fallen-off Quaker.

We supped upon cold gammon and salad. Our discourse was mixed and rambling; at first, it was political; then Cadwaller gave me the character of the constitution and government. The House of Assembly here, he told me, was chiefly composed of mechanics and ignorant wretches, obstinate to the last degree. * * * From politics the discourse turned to religion and physick."

On his return, Hamilton again met Cadwaller. "There passed a great deal of physical discourse betwixt the doctor and me." Unfortunately, in neither case were further notes made regarding the "*physical discourse*".

Of all Hamilton's experiences, he himself pronounced one "by much the greatest wonder and prodigy I had seen in my travels, and every whit as strange a sight by land as a mermaid is at sea. It was a carter driving his cart along the road, who seemed to be half man, half woman. All above from the crown of his head to the girdle seemed quite masculine, the creature having a great hideous unshorn black beard and strong coarse features, a slouch hat, cloth jacket, and great brawny fists, but below the girdle there was nothing to be seen but petticoats, a white apron and the exact shape of a woman with relation to broad round buttocks. I would have given something to have seen this creature turned topsy-turvy, to have known whether or not it was an hermaphrodite, having often heard of such animals, but never having seen any to my knowledge; but I thought it most prudent to pass by peaceably, asking no questions, lest it should prove the devil in disguise."

At that time one rarely traveled here for travel's own sake. Consequently, Hamilton's

journey was a continuous public performance. At whatever inn he and his "boy" appeared, people gathered from all around to gape at the stranger in fine velvet waistcoat and knee breeches, with a pair of carved pistols at his belt which he could handle with telling skill despite the lace ruffles at his wrists. Among the gapers at one inn was "a fellow with a worsted cap and great black fists. They styled him *doctor*. Flat (the inn keeper) told me he had been a shoemaker in town, and was a notable fellow at his trade, but happening 2 years ago to cure an old woman of a pestilent mortal disease, he thereby acquired the character of a physician, was applied to from all quarters, and finding the practice of physick a more profitable business than cobbling, he laid aside his awls and leather, got himself some gallipots, and instead of cobbling of soles fell to cobbling of human bodies."

At another inn Hamilton met "a greasy, thumbed fellow, who, as I understand, professed physick, and particularly surgery in the drawing of teeth. He practiced upon the housemaid, a dirty piece of lumber, who made such screaming and squawking as made me imagine there was murder going forwards in the house. However, the artist got the tooth out at last, with a great clumsy pair of blacksmith's forceps; and indeed it seemed to require such an instrument, for when he showed it to us it resembled a horsenail more than a tooth."

The cobbler-physician story reminded us of a boyhood observation concerning an almost identical experience. In the town of Frederica, Delaware, at about the time when Philip Marvel was studying medicine in "off-hours" and trying during his work hours to get small doses of knowledge into our system by a process resembling forced-feeding, there was a shoe cobbler who practiced dentistry—or perhaps we should say, who practiced in that limited field of dental surgery where his prototype is known as an orthodontic extractionist—with an instrumental equipment of 1 pair of shoemaker's forceps, and who answered an inquiry as to the source of his knowledge of extraction, by saying that he had practiced many hours in the drawing of wooden pegs and iron nails from old shoes. We can testify to having seen him operate, performing extractions successfully, many times.

With so much of a prelude, by way of introduction to our characters, and an explanation of the scenic properties, we can proceed to stage the drama concerned with the relationship of physicians to legislation and legislators. Just what constituted the *first* medi-

cal law enacted or promulgated, applicable to the region now recognized as New Jersey, is something of an enigma. It seems reasonably likely that it consisted in the rules and regulations laid down in the Duke of York's Charter connected with the transferring of his grants to Berkeley and Carteret; which reads as follows:

"Chirurgeons, Midwives, Physicians.—That no person or persons whatever employed about the bodys of men, women, or children for the preservation of life or health as chirurgeons, midwives, physicians, or others, presume to put forth or exercise any act contrary to the known approved rule of art in each mystery or occupation, or exercise any force, violence, or cruelty upon or towards the body of any, whether young or old (no, not in the most difficult and desperate cases), without the advice and consent of such as are skillful in the same art (if such may be had), or at least of some of the wisest and gravest then present, and consent of the patient or patients if they be *mentis compotes*, much less contrary to such advice and consent, upon such severe punishment as the nature of the fact may deserve; which law, nevertheless, is not intended to discourage any from all lawful use of their skill, but rather to encourage and direct them in the right use thereof, and to inhibit and restrain the presumptuous arrogance of such as, through confidence of their own skill or any other sinister respects, dare boldly attempt to exercise any violence upon or towards the body of young or old, one or other, to the prejudice or hazard of the life or limb of man, woman, or child."

There may have been some local township laws or pronouncements, *in the nature of quarantine regulations*, such as are indicated in a letter written in the summer of 1756 by the Governor of New York to the Governor of New Jersey, setting forth the possible dangers of infection being carried through New Jersey by commercial transportation between Philadelphia and New York City, and in the response from the Governor and Council of New Jersey, to the effect that all goods in transit would be arrested at some convenient place, where they could be opened, aired, and held for the space of 10 days or more, as a check upon such risks; but no *general medical law* was enacted in this state (New Jersey) until 1772. As an example of local laws, one ordinance, giving autocratic powers to a special Quarantine Committee, and dangerous because any 3 members of that committee could, under the cloak of quarantine, deprive a citizen of his liberty, was announced by the City of Newark in 1679.

It is recorded that on September 7, 1772, the House of Assembly received "sundry petitions from a great number of inhabitants in divers counties in the Province praying that a law might be passed to regulate the practice of Physic". Whereupon, a motion offered by Lord Stirling was adopted, and an order was issued that: "The petitioners have leave to bring in a Bill agreeably to the prayer of the said petitions." Lord Stirling did, 2 days thereafter, introduce an Act to: "Regulate the Practice of Physick and Surgery within the Colony of New Jersey." That Act was read and advanced to the second reading file on September 9, 1772. On that same day, the Act passed its second reading and was committed to the Council. Thence the progress of that bit of legislation was as follows: September 15, read for the third time and ordered to be engrossed. September 16, the engrossed copy was read, compared with the original, and Lord Stirling was ordered to take it again to the House of Assembly for concurrence—apparently, some amendments had been tacked on by the *Council*, which body, we understand, was equivalent to a Cabinet or a Senate in other bicameral forms of Government. On September 23, the House having agreed to accept the amendments, the Act was ordered to be reengrossed. Next day, the House having further amended the document, it was entrusted to Mr. Stockton with instructions to have it compared and endorsed by the Speaker of the Assembly. On September 26, a special message from the House "ordered that Mr. Tucker and Mr. Hewlings do carry to the Council the reengrossed and signed Act, and inform the Council that the said Act has been passed by the House". At the time of delivering that message—so it is recorded—"His Excellency was pleased to give his assent to the following Bills, ordering them to be enrolled," and, fifth among those Bills, was the Act, the complicated course of which you have been wearily following; the first clearly defined, deliberately considered, and purposeful law for regulation and control of the practice of medicine in New Jersey.

This was not only the first law to regulate the practice of medicine in New Jersey (other than the rules attached by the Duke of York to land purchased by Berkeley and Carteret) but the second of its kind established in the Colonies, and it was patterned after the New York law but was made more stringent in its requirements.

It may interest you to know that "His Excellency" here referred to, was William Franklin, Esq., illegitimate son of our beloved

Benjamin Franklin, the First Civilized American Citizen. Incidentally, the original petition for such a law, submitted to the Governor, is worth reading because of its quaint language:

"To his Excellency William Franklin Esqr. Captain, General, Governor, & Commander in Chief, in & over his Majesties Province of New Jersey, & Territories thereon depending in America, Chancellor & Vice Admiral of the Same.

To the Hon.^{ble} his Majesties Council for said Province. And to the Hon.^{ble} the Representatives for the Province aforesaid in General Assembly convened.

The petition of the Subscribers Freeholders and Inhabitants of Princeton;

Most humbly Sheweth.

That many Persons ignorant & unskillful in Physic & Surgery, in order to gain a Subsistence, do take upon themselves to administer the former, and practise the latter; thereby endangering the Lives & Limbs of their Patients, and greatly impoverishing their Estates, to the unspeakable Injury of the Survivors, who frequently are composed of a distressed Parent, and a miserable Offspring."

The Act itself follows:

"An Act To Regulate the Practice of Physic and Surgery within the Colony of New Jersey.

Passed Sept. 26, 1772.

"Whereas, many ignorant and unskillful persons in Physic and Surgery, to gain a subsistence, do take upon themselves to administer Physic and practice Surgery, in the *Colony of New Jersey*, to the endangering of the Lives and Limbs of their Patients; many of His Majesty's Subjects who have been persuaded to become their Patients have been Suffering thereby; for the Prevention of such Abuses for the future

BE IT ENACTED by the Governor, Council and General Assembly and it is hereby Enacted by the Authority of the same, That from and after the Publication of this act, no Person whatsoever shall practice as a Physician or Surgeon, within this Colony of New Jersey, before he shall have first been examined in Physic or Surgery, approved of, and admitted by any 2 of the Judges of the Supreme Court, for the time being, taking their Assistance for such Examination such proper Person or Persons, as they in their Discretion shall think fit, for which Service the said Judges of the Supreme Court as aforesaid, shall be Entitled to a Fee of *twenty shillings*, to be paid by the Person applying; and if any

Candidate, after due Examination of his Learning and Skill in Physic or Surgery, as aforesaid, shall be approved and admitted to practice as a Physician or Surgeon, or both, the said Examiners, or any two or more shall give under their Hands and Seals, to the Person so admitted as aforesaid, a Testimonial of his Examination and Admission in the Form following to wit:

To all to whom these presents shall come or may concern; Know Ye, that We whose Names are hereunto subscribed, in Pursuance of an Act of the Governor, Council, and General Assembly of the Colony of New Jersey, made in the Twelfth Year of the Reign of our Sovereign Lord King George the Third, Entitled, An Act to regulate the Practice of Physic and Surgery within the Colony of New Jersey, having duly examined

of Physician or Surgeon, or Physician and Surgeon as the case may be, And having approved of his Skill, do admit him as a Physician or Surgeon or Physician and Surgeon to practice in the said Faculty or Faculties, throughout the Colony of New Jersey. In Testimony whereof we have hereunto subscribed our Names and affixed our Seals to this Instrument, at this Day of *Annoque Domini 17*

2. *And be it further enacted by the Authority aforesaid, That if any Person or Persons shall practice as a Physician or Surgeon or both within the Colony of New Jersey, without such Testimonial as aforesaid, he shall forfeit and pay for every such Offence the Sum of £5; one Half thereof to the use of any Person or Persons who shall sue for the same, and the other Half to the Use of the Poor of any City or Township where such Person shall so practise contrary to the Tenor of this Act; to be recorded in any Court where Sums of this Account are cognizable, with Costs of Suit.*

3. *Provided always, that this Act shall not be construed to any Person or Persons administering Physic or practising Surgery before the publication hereof, within this Colony, or to any Person bearing His Majesty's Commission and employed in his Service as a Physician or Surgeon.*

And provided always that nothing in this Act shall be construed to hinder any Person or Persons from bleeding, drawing Teeth, or giving Assistance to any Person, for which Services such Persons shall not be entitled to make any Charge, or recover any Reward.

Provided also, that nothing herein contained shall be construed to hinder any skillful Physician or Surgeon from any of the neighboring Colonies being sent for upon any particular

Occasion, from practising on such Occasion within this Colony.

4. *And be it further enacted, by the Authority aforesaid, That any Person now practising Physic or Surgery, or that shall hereafter be licensed as by this Act is directed, shall deliver his Account or Bill of Particulars to all and every Patient in plain English Words, or as nearly so as the Articles will admit of; all and every of which Accounts shall be liable, whenever the Patient, his Executors or Administrators shall require, to be taxed by any one or more of the Justices of the Supreme Court, or any one or more of the Judges of the Inferior Court of Common Pleas of the County, City, or Borough wherein the party complaining resides, calling to their Assistance such persons therein skilled as they may think proper.*

5. *And be it further enacted by the Authority aforesaid; That every Physician, Surgeon or Mountebank Doctor who shall come into, and travel through this Colony, and erect any Stage or Stages for the sale of Drugs or Medicines of any Kind, shall for every such Offence forfeit and pay the sum of Twenty Pounds, Proclamation money; to be recovered in any Court where the same may be cognizable, with Costs of Suit; one Half to the Person who will prosecute the same to Effect, the other Half to the use of the Poor of any City, Borough, Township or Precinct where the Offence shall be committed.*

6. *And be it further enacted by the Authority aforesaid, That this Act, and every clause and Article herein contained, shall continue and be in Force for the Space of Five Years, and from thence until the End of the next Session of the General Assembly, and no longer. Provincial Laws of N. J."*

In Princeton, at the autumnal meeting, November 9, 1773, the Medical Society of New Jersey decided that a Charter of Incorporation (if it could be obtained), might operate much to the advantage of the practice of physic and surgery, and it was judged expedient to make application to the legislature for that purpose.

If permitted to interpolate here a personal remark, it is to say that any of you with experience as *Secretary* of a medical society will enjoy reading the minutes of our State Society meetings during the second half of the eighteenth century; will particularly enjoy noting how slightly the members of those early days differed from your more recent associates, and how like unto the present were their proceedings. For instance, doing a follow-up search on the action just mentioned as having taken place at Princeton, we found that

6 months later, May 10, 1774, in New Brunswick, the Charter Committee *had done exactly nothing*, and that so few of the members present were sufficiently informed about the matter even to discuss it, that the President declared conditions were evidently not ripe for a presentation to the legislature, and urged members to consider the affair *seriously* and come to the next meeting—6 months hence—prepared to express opinions. But, on November 8, 1774, the Society voted unanimously that, as at 2 preceding meetings motions had been made and adopted—to apply for a Charter—"we do now *proceed with spirit* to obtain the desired charter"; and then the Committee was enlarged by 3 additional members—raising the Committee membership from 3 to 6—and provision was made that the enlarged committee, or any 3 of its members, could act with authority. These votes were, possibly, based upon an assumption that 6 members could accomplish twice as much as a committee of 3 that had done nothing; or, maybe, could accomplish the same results in twice the time. At any rate, the meetings of May and November in the year 1775 found practically nothing more accomplished, though it was reported that the petition had been submitted to the Governor and Council and the wording of *the preamble had been amended* to dispose of some objections made by those representatives of the state. In like manner, we found that in several other respects the proceedings and the records were not markedly variant from those of meetings held today.

The year 1776 brought new conditions and some very distracting problems, and it is not now surprising that a gap appears in medical society proceedings; a gap covering 6 years, if measured in terms of time. The War for Independence called into military service practically all the members of this Society, and most of them made creditable records, one even reaching the highest medical post—that of Surgeon-General (John Cochran).

Upon resumption of meetings, in 1781, as soon as feasible, one of the first matters to receive attention was that of upholding the standard requirements for a license to practice, which had been established by the Act of 1772. The *Colony* status was abolished; *State* laws needed to be enacted. A committee was appointed to apply to the State Legislature for a Charter, incorporating the Society, or such Act as might seem proper to restrain or regulate the practice of physic and surgery. In consequence, on November 26, 1783, an Act was passed, and thus a *Law* secured—but *not a Charter*. The new law was

almost identical with the Act of 1772, even as to phraseology, the principal difference being that candidates for license had to be examined not only by the 3 Judges of the Supreme Court but by "2 able and skilful practitioners of medicine and surgery"—in other words, this law set up what was, essentially, a State Board of Examiners.

Efforts to secure a Charter were continued, and were eventually crowned with success; *the first Charter of this Society having been granted by the Legislature on June 2, 1790*. As a means of making it available to the present-day members of the Society, we are reprinting that Charter here, and will embody here also a copy of the Laws for Government of the Medical Society of New Jersey as approved and promulgated by our predecessors, at a meeting in Princeton in December 1791.

AN ACT

For Incorporating a Certain Number of the
Physicians and Surgeons of This State,
By the Style and Title of

THE MEDICAL SOCIETY OF NEW JERSEY.

Preamble. Forasmuch as a number of the Physicians and Surgeons of this State, have by their petition set forth that they have long since formed themselves into a Society by the name of the Medical Society of New Jersey, and that the objects of their association have been to maintain an uninterrupted intercourse and communication of sentiments with one another, to cultivate liberality and harmony among themselves, to promote uniformity in the practice of physic on the most modern and approved systems, to correspond with and receive intelligence from the like societies abroad, and generally to improve the science of medicine and to alleviate human misery, and have prayed the aid of legislative authority to enable them more fully to carry into effect the good purposes of their Society; and the Legislature being willing and desirous that they might be enabled to make such laws and regulations for the admission and government of their own members, to preserve with safety such valuable curiosities of the animal, vegetable, and mineral kingdoms as may be discovered in this country or sent them from abroad, and to record and preserve their experiments and discoveries and the success of their various investigations; therefore

Section 1. Be it enacted by the Council and General Assembly of this State, and it is hereby enacted by the authority of the same, That Moses Bloomfield, John Griffith, William Burnett, Ebenezer Blackley, Isaac Harris, Thomas Wiggins, Hezekiah Stites, James

Newell, Isaac Smith, Jabez Canfield, Samuel Kennedy, Thomas Henderson, Jonathan Elmer, Thomas Barber, John Beatty, Elisha Newell, Benjamin Stockton, Moses Scott, Lewis Dunham, Jonathan F. Morris, John G. Wall, Hezekiah S. Woodruff, John A. Scudder, Abraham Howard, Robert Henry, James Stratton, David Greenman, Thomas Griffith, Benjamin Tallman, George W. Campbell, Edward Taylor, Lewis Morgan, John Cooper, Archibald McCalla, Thomas Montgomery, Isaac Ogden, William Canfield, Abraham Canfield, Samuel Covenhoven, Abel Johnson, Samuel Shute, Francis Bowes Sayre, Cyrus Pearson, John Reeves, Samuel Forman, William Stilwell, Paul Micheau, Ebenezer Elmer, Hendrick Schenk, John Abraham De Normandie, and such other persons as shall be admitted into the said Society according to the rules thereof, shall be, and they are hereby declared to be a body politic and corporate for the term of 25 years, and from thence to the end of the next sitting of the Legislature, and shall henceforth be called, distinguished and known by the name of the Medical Society of New Jersey, and by that name they shall have succession.

Section 2. And be it enacted by the authority aforesaid, that the above named (a list of 50 names deleted by the Editor to conserve space) members and their successors, be and they are hereby authorized in law to purchase, take, hold, receive and enjoy any messuages, houses, buildings, lands, tenements, rents, possessions and other hereditaments in fee simple or otherwise; and also goods, chattels, legacies and donations given to the said Society in any way or manner, to the amount of 500 pounds; and also, that they and their successors by the name of the Medical Society of New Jersey, shall and may give, grant and demise, assign, sell or otherwise dispose of all or any of their messuages, houses, lands, tenements, rents, possessions and other hereditaments and all other goods, chattels and other things aforesaid as to them shall seem meet; and also, that they and their successors by the name of the Medical Society of New Jersey be, and for the term aforesaid shall be able in law and capable to sue and be sued, implead and be impleaded, answer and be answered, defend and be defended in all courts of judicature whatsoever; and further, that the members for the time being and their successors shall, and may for the term aforesaid, hereafter have and use a common seal, with such device or devices as they shall think proper, for sealing all and singular deeds, grants, conveyances, contracts, bonds, articles of agreement, assignments, powers, authori-

ties, and all and singular their instruments of writing touching or concerning their corporation; and also, that the said members and their successors for the term aforesaid may, and as often as they shall judge expedient break, change and new make the same or any other their common seal.

Section 3. And be it further enacted by the authority aforesaid, that for the preservation of good order and carrying more fully into effect the good principles and objects of the said Society, there shall and may be in the said Society, one president who shall be the keeper of the common seal, and vice-president, who shall preside in the absence of the president; a treasurer and recording secretary, all of which officers shall be appointed by ballot, and shall continue one year from the time of entering on their respective offices, and until others are appointed in their stead, and there shall likewise be one other secretary, to be considered and called the corresponding secretary, whose office shall continue during the pleasure of the said Society.

Section 4. And be it further enacted by the authority aforesaid, that Moses Scott shall be, and he hereby is appointed president, Thomas Barber, vice-president, Thomas Wiggins, treasurer, and Francis Bowes Sayre, recording secretary, to hold the said respective offices and to perform and execute the duties thereunto appertaining, until the first Tuesday in November, 1790; and henceforth and for the term aforesaid, it shall and may be lawful for the members of the said Society, on the first Tuesday in November, yearly and every year, to elect by ballot a president, vice-president, secretary and treasurer, who shall continue in office until superseded by a new election, and that John Beatty be and he is hereby appointed corresponding secretary, to continue in office as prescribed in the section immediately preceding.

Section 5. And be it further enacted by the authority aforesaid, that the said Society, or any 15 members when met, whereof the president or vice-president and 1 of the secretaries always to be a part, shall constitute a quorum to do all business relative to the Society: Provided always, that no measure entered into at any meeting of the Society where not more than 17 members are present shall be binding, unless 9 be consenting thereto; and in all other cases where more than 17 are present, a majority of the members shall decide.

Section 6. And be it further enacted, that the said Society when met, shall have full power and authority from time to time and at all times hereafter, to make such laws, or-

dinances and constitutions for the well ordering and governing the said Society, or which shall have any tendency to promote the benevolent objects and principles of the institution, and which shall be obligatory on the members thereof, and the same to alter, diminish and reform, as to them shall seem necessary and convenient; Provided always, that such laws, ordinances and constitutions be not repugnant to the laws of this State, or of the United States.

Passed at Perth Amboy, June 2, 1790.

LAWS

For the Government of

THE MEDICAL SOCIETY OF NEW JERSEY.

Agreed Upon in Committee of the Whole at Princeton, in December, 1791.

Section 1. This Society shall be known and distinguished by the name of the Medical Society of New Jersey.

Section 2. A general meeting of the Society shall be held once in every year.

Section 3. This Society shall hold their general annual meeting on the first Tuesday in November, at Princeton.*

Section 4. The Society shall be subdivided into 4 smaller societies in such manner as may be deemed most convenient, which smaller societies are to be considered as branches, and subjected to the control of the yearly meetings. The meetings of the inferior societies shall be held at regular stated places, on the first Tuesday in May, annually.

Section 5. The officers of this Society shall be a President, Vice-President, Corresponding Secretary, Recording Secretary and a Treasurer, whose election shall be determined by a majority of votes of the members then present, to be taken by ballot. On a division of the votes in such a manner as not to throw a majority of the members present in favor of any one candidate, then the 2 highest on the list only shall be in nomination, and the vote again taken.

Section 6. It shall be the duty of the President to open the Society with a dissertation on some medical subject, to preside at all the meetings, to adjourn the same, to collect the votes on a division and declare the sense of the Board, to take order in all matters discussed in the Society, to draw orders on the Treasurer for such sums of money as may be directed by the Society, and to do all other

things which belong to that office according to the custom of public bodies.

Section 7. In case of the absence of the President, the Vice-President shall take the chair, and except reading a dissertation, shall perform all the duties of the President.

Section 8. The Corresponding Secretary shall receive and answer all communications from other Societies, except when the business in his opinion may be of such a nature as to require the sense of the Society, when he shall defer answering such special business until the Board be convened. He shall keep regular and fair copies of all the answers he returns, and shall lay them, together with the communications from abroad, before the Society at every general meeting.

Section 9. The Recording Secretary shall take minutes of the Society's proceedings, which he shall record in the book for that use provided, with faithfulness and accuracy.

Section 10. The business of the Treasurer shall be to receive all such moneys as become due to the Society either by donation, fine, subscription, annual contribution or otherwise. He shall pay to the order of the President only, such debts as are contracted by the Society's order, and shall keep a regular account of his receipts and disbursements, to be entered in a book provided for that purpose, which he shall produce for the inspection of the Board, and at the expiration of his office shall pay forward to his successor all such money or other property of the Society's as may then remain in his hands; he shall also be obliged to give security, if the Society deem it necessary, for the due performance of his office.

Section 11. This Society shall have power to elect honorary members, the proportion of whom shall never exceed in number one-fourth of the members composing this Society, and actually resident within the State.

Section 12. No person can be balloted for as a member of this Society, unless he has become a regular practitioner within this State, and shall produce ample testimonials as well of his moral character as professional acquirements, from three members of this Board; and all candidates for membership shall notify the Society of their intentions, one stated meeting previous to their being balloted for.

Section 13. Every candidate shall write a dissertation on some medical subject or philosophical subject connected with medicine, which he shall read before the Society previous to his being balloted for, and shall submit himself to such examination as the Society shall think proper.

*This Section altered conformably to an Act of the Legislature, passed Dec. 1, 1807.

Section 14. Every member shall in rotation, beginning with the oldest, write a dissertation on some medical subject, or state a case which he shall read and afterwards deliver to the Secretary to be read by paragraphs; and such dissertation or case, shall be the subject of discussion for the day.

Section 15. Every dissertation, case or medical communication, shall be lodged in the files of the Society.

Section 16. Every member shall upon application, receive a certificate of his membership signed by the President and attested by the Secretary, and sealed with the seal of the corporation, for which he shall pay the sum of

Section 17. The form of the certificate shall be as follows, viz :

SOCIETAS MEDICA NEO CAESARIENSIS
Omnibus Has Literas Lecturis
SALUTEM

Proeses et Socii hujus societatis ad scientiam medicam promovendam et miserias humanas sublevandas Anno Domini millesimo septingentesimo sexagesimo sexto institutae et pro meritis agnita fuit et concorporata reipublicae senatus-consulto eruditos, in arte medendi sibi addiscendi semper et obnixe cupidi ingenuum virum A. B. socium societatis adscribendum putaverunt eidemque omnes hujus societatis honores et privilegia condonavert.

In cujus rei testimonium haec membrana sigillo societatis munita et a Praeside subscripta testimonio sit.

DATUM PRINCETONIS die (quinto Decembris, &c.), anno Domini millesimo septingentesimo nonagesimo (primo).

. Pres.

Section 18. Every member shall pay annually into the hands of the Treasurer the sum of 10 shillings as the foundation of a fund for the uses of the Society.

Section 19. Any member resident within the State, neglecting to discharge his annual contributions, or such fines as he may incur for 1 year after they become due, shall forfeit in addition thereto one-fourth of the sum.

Section 20. Every case submitted to the Society for an opinion, by any member, shall be accompanied by an accurate history of the same, that, being possessed of a just statement of the rise and progress of the complaint, the Society may be enabled to discuss it more fully, and to form a more decisive judgment for the benefit of those who may consult them. A regular journal of the

effects of such remedies as are presented shall be transmitted to the Society at farthest, within a year after such prescription."

A period of quiescence naturally followed the long continued labor of securing this law and charter; in fact, there was a dangerous relaxation, for it appears that the organization was dormant—almost defunct—from 1796 until 1807; a *small but loyal group of the older members only* keeping the Charter and the Society alive by occasional gatherings, recording the effort made and the failure to secure a proper meeting because the *grim reaper*, the War, the scattering or redistribution of population that has followed all wars, and other post-war difficulties had made it impossible to successfully arrange a meeting in accord with the unusually high figure given in this Society's rules to provide a quorum.

The names of those who saved this Society, at a time when other organizations in similar predicaments, in this and in other newly-formed states, became extinct, and who deserve to be honored as we do or should honor the Original Founders, were: John Beatty, Lewis Dunham, Jonathan Ford Morris, Thomas W. Montgomery, Henry Schenck, Moses Scott, William M. McKissack, Lewis Morgan and Isaac Ogden.

This group brought in 19 fellow physicians, elected them to membership—so as to reach the quorum figure—and then asked the Legislature to ratify their irregular procedure. The Legislature promptly gave approval, because—and this reason the Legislators wrote into the Act of Ratification—they were "desirous of again enabling the Society to carry into effect the good purposes of its institution."

The re-organized State Society immediately turned its attention to strengthening itself through the formation of branches and tried first a system based upon a grouping of counties into districts, apportioning the counties among 3 districts, known as Eastern, Middle and Western. This system did not work well enough to justify itself, however, and the Society substituted and put into effect in 1816 the plan of a branch society for each county; showing then, what New York and New Jersey legislative bodies are now again considering as favorable to public health work, that the political *county division* is the most satisfactory unit of state work.

We entered the nineteenth century with a *Charter and a Law* wherewith to guide and control the legal and professional aspects of medical practice, but it appears doubtful whether any law ever has or can work

smoothly for a great length of time. Complaints arose concerning the examination of would-be licentiates, and request was made for amendment of the law of 1783, to require the Supreme Court Judges to select the examiners from a list submitted by the Society. Apparently, the Judges had felt at liberty to name physicians not in the Society membership. This request being refused (in 1811), the Society turned its attention to the seeking of a *new Charter*, one which would embrace in combination the Law regulating examination and licensing, and thus bring these functions into its own hands.

It required 3 years of untiring labor to guide the new Act through the Legislature, but it was successfully done by February 16, 1816, when it secured the new "Act to Incorporate the Medical Society of New Jersey", which repealed all previous Acts and Supplements. It was accomplished under the leadership of Dr. Jephtha B. Munn, who was also a member of the Assembly. It appears that a member of Munn's committee, Dr. Lewis Condict, who had served in the Legislature, who was at the time a member of Congress, and who had been always a staunch friend of and hard worker in the Society, had advised against the action taken in respect to seeking the new Charter. Although opposed, he "went along with" those constituting the majority. His laugh—if he did laugh—was to come later, when his predictions of unfavorable legislative complications were verified.

The Charter of 1816 gave the Society all it had asked for—and then some. It was quickly discovered that one Section (Sec. 2) placed control of the Society in the hands of a "board of 15 managers". At the first meeting, in May 1816, under the new Charter, a typical King Fish (of Amos and Andy fame) *incorporation* procedure was enacted. As soon as the Board of Managers had been chosen, the said Board proceeded to elect all the Society Officers, from President to Chore Boy, from among its own ranks. That scheme had to be broken, of course, and at the next annual Meeting steps were taken toward abolishing the Board and inaugurating the Delegate System which has remained in effect ever since.

There were still other troubles associated with the Charter of 1816. Section 4 contained 2 unsatisfactory propositions, the worse being the "exemption of any person then engaged in practice", from meeting the license requirements; which legalized, of course, the practice of many so-called physicians, who were not adequately educated, trained, or equipped

—some of whom, indeed, had not even dared ask for a license.

The situation made it necessary for the Society to resume its earlier efforts to raise educational standards. To the credit, to the honor, to the glory of the Medical Society of New Jersey, it may proudly be said that in its determination to place and maintain the practice of medicine upon the highest practicable plane of education, of skill, and of culture, it has never faltered at any time through the 166 years of its life; and though many times beset by those who thought more of money than of human life, it has continued the fight, under the banner of idealism, toward the goal of health and human happiness of later phases of this unending struggle, we shall treat at another time.

Medical Ethics

"MORALITY IS A PRIVATE AND EXPENSIVE LUXURY"

"The Education of Henry Adams", p. 335

John Hammond Bradshaw, M.D., F.A.C.S.,
Orange, N. J.

In reading, casually, this caption, anyone will be likely to exclaim: "*It is a private and expensive luxury not to be moral!*" But is this the meaning that Adams, in his book, had in his own mind?

Henry Adams had quite a respectable background, and, although he might have denied it, he actually did acquire some education. His 4 years at Harvard College he seemed to enjoy telling the world had been a total loss of his own time and of his father's money. His early manhood was spent among people who used their brains to get together scraps of knowledge rather than collect chunks of gold. Charles Sumner would often drop into Henry's father's house and talk; and, whatever faults one may find with Charles Sumner, one must admit that he could talk, and Boston, in 1860, had many men who for want of a better term one might say really belonged to the "intelligentsia".

Adams' father's house often had such callers as Ralph Waldo Emerson, Channing, and Wendell Phillips. Henry Adams soon after leaving college became his father's private secretary in London, when the elder Adams was appointed, by Abraham Lincoln, Minister Plenipotentiary and Ambassador to the Court

of St. James. Remember, this was at a period when the United States was engaged in a Civil War; and England and all her ministers were not even civil to the established government of the United States. Most all of England wanted the cause of Jefferson Davis to prevail; and even Gladstone proclaimed stentoriously in Parliament that Jefferson Davis had "made a nation"!

It was a great triumph for American diplomacy to prevail against such odds; but Charles Francis Adams did prevail, and lived long enough in England as Ambassador to see the fullest acknowledgment of this triumph even by the English.

The "Private Secretary" (although his skeptical mind afterward doubted it) must have here made some "dent" in his "education" during this period (almost ten years), when he was copying letters for his father, the Minister of the United States, to such men as Palmerston, Lord John Russell, and William Ewart Gladstone.

Not long after Adams' return to the United States, he was appointed (under his own protest) by Charles W. Eliot, President of Harvard College, to a full Professorship in History. This appointment he describes in his book, called "The Education of Henry Adams", which he wrote in his old age, as being almost foolish for himself, the college, and his pupils. He never (outwardly) admitted that this job did anybody any good.

Adams loved one very fine friend very dearly, the eminent geologist, Clarence King; and the friendship between the 2 continued many long years until King died of tuberculosis. John La Farge, the artist, who could transport the whole world with his miracles of stained glass, was one of Adams' greatest pals. He was on more than intimate terms with Whistler, the immortal artist, St. Gaudens, the sculptor, who, although born a shoemaker's son on old Fourth Avenue, New York City, lived to be one of this world's greatest men. But most important to Adams was his close friendship with John Hay, who surely here needs no introduction. This friendship lasted for over 40 years. Just to mention it, in passing, let us state that he was always received *en famille* by Henry Cabot Lodge. And, later, Adams was more than an intimate with Theodore Roosevelt.

During his fairly long life he was a tremendous reader of books and a student of men. Often he would cross the ocean, a number of times each year; and he traveled in many lands with a most intelligent companion, or company, not so much for sight-seeing

as in order to try to learn the hidden meaning of the universe.

To the readers of "The Education of Henry Adams", it almost seems like a pose when Adams tells us that all this failed to satisfy his own standard for "education". With the equipment of as many foreign languages as he had fingers on one hand, *something* must have been lacking if he could not learn. And, incidentally, he wrote the book we are discussing in the last decade (the seventh) of his life.

"The Education of Henry Adams" is not a new book. We believe it was written when Adams was about 65 years of age. It was not written for money (for which miserable substance Adams seems to have had little regard). It was first published privately (1907) only for free distribution to his friends. But the wise ones of the literary world soon found a book had been written which would not die. It was then published for the public (I believe after Adams' death). At any rate, if this is any criterion of its worth, it was awarded one of the big literary prizes (posthumously) of the year.

Now, no one will doubt but that to the average professional city politician "morality is an expensive luxury". Naturally, one should ask: "What is the definition of the word 'morality'?" Turning, of course, to Webster, we find the following:

"MORALITY—The relation of conformity, or non-conformity, to the true moral standard or rule; the quality of an intention, a character, an action, a principle, or a sentiment, when tried by the standard of right; the quality of an action that renders it good; the conformity of an act to the divine law, or the principles of morals." (Selah!)

It is doubted by the writer if Adams ever read Webster's definition of the word "moral". It seems to us rather strange that he was always skeptical of the efficiency of his own education for we must admit he had more advantages than most men. But, if Adams had read Webster, or not, it would have made no difference to Adams. He would have just the same written the words; "Morality is a private and expensive luxury".

Adams always loved a paradox. We all know that his mind ran in somewhat cynical if not skeptical, grooves. But he was a man far above the usual (garden variety) of intelligence. Many of his words one reads a number of times, again and again, and each time one gets a new and perhaps a different meaning. Although "The Education of Henry

Adams" is an old book (for all the new books are not the best books), it is the rather unusual intellectual qualities of the book that makes it always a "new book" and although it is a quarter-century old, it really requires repeated reading.

Finally, the writer does not expect (or intend) to affirm to the members of the Medical Society of New Jersey that "morality is a private and expensive luxury". That is far from the object of his simple effort. But it is only the purpose of this article to toss the football into the arena and enjoy the scrap.

Esthetics

SEA-GULLS ON THE CLIFFS; THE MASTERY OF FLIGHT

(We clipped this tribute to the Gull from the London Times but, unfortunately, failed to note the date. However, as we so greatly admire this bird, never tire of watching its flight, and had just caught an excellent "moving picture" of several of them, balancing or moving as here described, we shall print the tribute.—Ed.)

Among the several varieties of sea-gull to be found in Britain there are curious diversities of habit. Following the plough, the hindmost of the flock scrambling over the leaders to secure the prey turned up by the share, swarming in a noisy cloud to take food from the hands of onlookers on Thames bridges, resting in motionless companies on marshy flats by the sea or even on suburban commons, haunting inland lakes or flying at night-fall high over mountain passes on their way back to the coast, pacing along the edge of the water in tidal estuaries, they one and all—kittiwakes, black-headed, black-backed, herring-gulls—attract the judicious observer by the very differences of their ways and surroundings. Ashore in meditative repose, or resting on the waves, nesting in crowded gulleries, or sailing in serene flight which seems to have no motive but pleasure in its perfection of accomplishment, they deserve all the attention which good eyes or binoculars can give them.

They are best of all seen on sea-cliffs, their own stronghold, inaccessible crags whose base the tide never leaves. They seem to be wasting their proper qualities when they frequent inland meadows and plough-fields, where they only rank with rooks and plovers; on sand-

banks and mud-flats they sink to the level of such unadventurous shore-haunters as oystercatchers and redshanks. The watcher, standing near a cliff-top, or, what is better, lying flat to look over the very edge, can see the gulls busy about their own devices at short range, even as near as he may have watched them, a hungry crowd, swooping and diving by the parapet of London Bridge. From his vantage-point he can look down upon the gullies and terraces of the cliff-wall, and when an old bird alights on a narrow shelf may behold a couple of fledglings, brown-spotted like partridges, creep along the rock-face among the tufts of thrift and sea-stock toward the parent. Far below, just outside the fringe of foam which laps the cliff's foot, the green water is dotted with gulls afloat on the quiet tide, motionless save as they rise and sink to the slow swell, not swimming or fishing, but merely resting, it seems, as they rest on the cliff-face, in intervals of deliberate leisure which few birds but the sea-tribes seem able to enjoy. A livelihood from inshore fishery alternates between strenuous toil and vacant holiday; there is something more than a fanciful likeness between the indolence of the gulls and the sabbaths of a fishing-village when the greybeards lean by the hour over their boats, or stand with one foot upon a balk of wreck-timber, scanning with elemental patience the face of the sea. In both birds and men, perhaps, the idleness is not so aimless as it may appear to be to a visitor from a better-drilled world.

From the cliff-edge it is possible to watch for hours the gulls on the wing, and to try to discover something of the secret of the mechanics of their flight. In their motion, to human view, there is much of the inconsequent lack of purpose which there is in their rest. What impels the birds, we ask, to sail in procession along the cliffs up-wind, to turn suddenly and come back down-wind with speed unchanged, on almost motionless wings, on a beat of half a mile for half an hour together? There is no telling, unless it be some degree of conscious enjoyment in the practice of surpassing skill. One use, at any rate, the thing has for the human spectator—the wholesome exercise of the sense of wonder and a touch of humiliation in remembering certain concomitants of our own boasted "conquest of the air". The flight follows to a large extent the very lip of the cliff, and the birds may pass unconcerned almost within arm's length of the watcher; he can see red or yellow-green beak, the watchful eye as the head is turned from side to side to look below, the feet tucked away together flat under the

tail, the perfect adaptation of the lines of the body, the little hull driven by those tireless oars, the soft harmonies of the plumage, silver grey, clear white, and dead black; he may note that in late summer the feathers at the wing-tips are often split and frayed, or that a primary is missing. He will gain little if he goes beyond the mere pleasure in the rhythm and poise of the flight, and tries to solve problems of the dynamics of the smooth gliding-speed on motionless planes, the almost vertical banking which produces a right-about turn, the occasional stroke of the long and narrow wings, the soaring and diving action due, he may persuade himself, to an almost imperceptible warping of the wing-tips.

Every phase of movement, level glide, soaring rise, downward sweep, control of direction to a hair's breadth, is done with unhurried ease and in silence as absolute as that of an owl's course. The swifts may go by with a swish like the wind through dry bents, the finches beat the air with a flurry of their short wings, the wood-pigeon clap his broad ones above his back; the sea-gulls' navigation is soundless. Only their voices break the ceaseless murmur of the tide below the steep, as with wide-open beaks they utter their cries, the nasal ha-ha-ha which suggests a sardonic laugh, or thin pipings like the mewing of kittens. If they need a foil to set off the perfection of their flight, there are the jackdaws which share the cliffs with them, a sooty and shabby crew who imitate with clumsy and jerky shortcoming, almost comic in its effect, the motions of those incomparable wings.

Collateral Reading

WHAT ABOUT LAWYERS?

Alice Hamilton, M.D.

In a recent issue of Harpers Magazine, Dr. Hamilton asked this question—presenting it, in fact, as the title of her article—and, by way of answering it—contrasted the ideals, professional ethics, and routine common practices of clergymen, attorneys and physicians; particularly matching the doctors of medicine against the doctors of law—and, after showing the relatively nobler conduct of physicians as compared to lawyers, continued to express amazement that the public is constantly criticizing our profession, but only rarely directs its displeasure toward anything done by lawyers. Her arguments, well supported by specific evidence, were so markedly

like our own would have been, and she had expressed our own feelings and described our observations so much better than we could have done, that we decided to present an abstract of the article—as will follow—and to suggest that others who may have felt the inclination to record similar experiences do now offer them for publication as an off-set to the numerous criticisms of the medical profession, with which news-papers and lay magazines have been literally flooded during the past 5 years. So, we now proceed to quote from Dr. Hamilton's paper, changed only by the use of italics to emphasize words or phrases to which we would like to direct special attention.—Ed.)

The magazines lately have been full of articles which arraign the doctors, sometimes in bitter and tragic vein, sometimes humorously but still with a little bitterness—articles written by patients from their own experiences. I have read them, and I cannot refute the charges—perhaps no doctor could—but I *do wonder why* it is the *medical profession* that is always held up to obloquy and *never the legal profession*, for to my mind lawyers are much more deserving of arraignment than doctors. It must be that the majority of respectable, educated people, the class that writes magazine articles, does come in personal contact with our far from perfect system of medicine but almost never with our even less perfect legal system; above all, not with its least respectable branch, criminal law. Now, I also belong to the respectable, educated class, but Fate has placed me in situations where I have had to come in close intimate contact with criminal law as it is administered in one large city, and with the civil law in several cities, and I firmly believe that *the worst* that can be said about *medical practice* is *too good* to be said about *legal practice*.

Bearing in mind the many times I have been admonished by lawyers to abstain from hearsay evidence, I shall speak only of my own experience, gathered partly in the old police courts and the modern municipal courts of Chicago, partly in the more respectable civil courts. Of course I shall at once betray my lack of legal knowledge, but then a *lack of medical knowledge does not hold back the critics of physicians*, nor should it. Outsiders can see what insiders fail to notice, because they are so used to it.

Perhaps I should explain that my experience with the law began in the early years of the century when I was living at Hull House. All of a sudden it was discovered that druggists were selling cocaine to school boys in

our neighborhood. We were forced to take it up—there was no one else, the poor parents were helpless, and it was before the days of the Juvenile Protective Association. And so for 2 or 3 years I analyzed the stuff brought in by the police, and testified in court as an expert. The law under which we worked was very inadequate. It specified *cocaine*, and did not cover bodies such as alpha- and beta-eucaine, (synthetic compounds with a similar action) and we had not gone far in our fight when the defense began to declare—and successfully—that the drug sold was eucaine. This meant that every specimen must be tested on somebody's eye; for while both eucaine and cocaine cause anesthesia, cocaine makes the pupil dilate, eucaine does not. Moreover, the law did not make the druggist responsible for his clerk's actions; it provided for a fine but no jail sentence; and the druggist paid the fine easily.

Now, here was surely a situation for the legal profession to consider and correct, since the law was manifestly imperfect. But was it so recognized? Not for a moment. All that the legal men did was to sit in judgment on our cases, *defend or prosecute them according to which side approached them first*, and pass on the orthodoxy of the law. After about a year we succeeded in getting a law passed which was stiffer and more inclusive, and under it we won 13 cases in the police courts. But they were appealed, and the appellate judge threw them all out—the result of a whole year of our struggles—*because the new law was ineffective*. There were legal flaws in it somewhere.

This man was a respected judge and he doubtless felt he was doing his whole duty, but to me it seemed, and it still seems, an *inadequate* conception of duty for a *judge*. If a town is stricken with typhoid fever, the doctors hold themselves responsible not only for the care of the sick and the protection of the rest of the people against infection, but for tracking down the source of infection and helping to clean it up. The legal profession is responsible only for following the rules of the game; and a queer game it surely is. The rules did not allow a judge to examine the law after we had framed it and tell us it would not hold water. That cannot be done. The law must be passed, and then some case must be brought under it before such a decision can be made. As if the doctors should say: "We cannot tell you if your new water supply is free from typhoid infection. Put in your reservoir and your pipes, and then if people fall ill we will tell you if it is typhoid, and if it is, you can put in another water supply."

Nor did any judge think it his duty to get a better law against the sale of cocaine; that was no part of his job. When, finally, a proper law was passed, it was due to the efforts of a Catholic priest and the head of the Bridewell.

In the old days before the War I used to visit not only the police courts but also the free dispensaries and I can compare the changes that have taken place in the past 25 years in charitable medical care for the sick poor with the changes that have taken place in the dispensing of justice to the poor. It was always possible, even years ago, to get the best of medical care for poor people, although often it meant going oneself with the patient in order to show dispensary officials and hospital interns that *somebody* was interested in this patient. Otherwise, routine and the sheer weight of numbers, sometimes led to perfunctory service. But we could, with a good conscience, urge mothers to take their babies to the hospital or the Home for Crippled Children and assure them that doctors and nurses were not cold-blooded fiends, bent only on making autopsies or on boiling up dead babies to make castor oil. And again and again the little things would be brought home cured; *justifying our faith*. In the years that have passed since I first knew them, both hospital and dispensary care for the poor have improved very much. Over-crowding and superficial examination have largely disappeared, and an excellent social service supplements the medical. A poor man can get as thorough a diagnostic examination as a rich man; as skilled surgical care; and even as expensive form of treatment if he needs it.

The old police court was a shabby, noisy, slipshod place. The lawyers often looked more like criminals than did the accused, and had far worse manners. There was no attempt at dignity or even order or cleanliness in the court, and it inspired neither respect nor confidence. It was the general custom then to turn to the alderman, or the precinct captain, or some other influential politician, for help when the hand of the law fell on anyone. Our neighbors had no faith in the justice or fairness of the courts; they trusted only to "influence" or money. The former was surer, but if you had no pull, the best thing you could do was to raise a few hundred dollars and give it to a lawyer who would "slip it to the judge". It may be that the judge never saw a cent of it; the point is that everyone believed he did, everyone looked on the police courts and all connected with them as ruled by politics or bought with money. Nor could we combat that belief with any show of convincingness. In the years that have passed

since then the police magistrates have given way to municipal judges, the dirty police courts to large impressive buildings, but for any real improvement in the administration of justice one would seek in vain. The character of the prosecutors and the lawyers for the defense, the dignity and impartiality of the judges show no change since 1900.

Not long ago I went to see an Italian family, in great distress over the arrest of a 19-yr.-old son for participating, with 2 others, in an attempted hold-up with guns. As we discussed what should be done, I was keenly struck with the fact that I, a representative of the country to which these immigrants had come, *could not tell them to have faith in its institutions, could not urge them to let justice take its course, trust to the wisdom and fairness of the judge*, and rest assured that their son, after serving his merited sentence, would come out of jail a reformed character. I could not say these things because *I knew none of them was true*. The judge in that court was certainly not immune to the approach of sundry political leaders, nor was it at all preposterous to say, as these parents did, that the other lads would be given light sentences because their fathers stood in with Diamond Joe Esposito; while their boy, with no backing, would be given a heavy sentence which could be played-up for the news-papers. I knew the lad should be taught a lesson somehow, that he should be pulled up short before he became a confirmed criminal, but I knew also that no place to which he would be sentenced would teach him that lesson; it would send him out far worse than he was when he went in. I do not know how I ought to have got out of the dilemma; all I know is that I stood by passively while a kindly neighbor pulled the right political strings and the lad got off with a sentence so short that I could hope he would not be much worse for it.

That is an instance which could be duplicated over and over in our big cities. It shows the criminal law as our poor immigrants find it. We can be proud of what we do for the health and education and amusement of the poor, but I think we must often hang our heads in shame when we think of what we give them in the name of the law.

Perhaps one reason why the criminal law is in such a bad way is that the lawyers themselves look on that branch of their profession with contempt. Now, that seems to me all wrong. Physicians make no such distinctions. A doctor may choose as his specialty the most loathsome diseases and he suffers no loss of caste. His business is to treat disease, quite

regardless of whether it has been innocently or criminally contracted. There was a striking contrast between the attitudes of the two professions in this respect at the time of the Averbuch case in Chicago. Averbuch was a young Russian Jew, a revolutionist, who was shot to death by the Chief of Police when he presented himself at the latter's door for some purpose which he never had time to declare. There was great excitement on the part of the police and the news-papers and every effort was made to prove that Averbuch was a would-be assassin and his act part of a wide-spread anarchist conspiracy. As our neighborhood was the chief scene of the police raids, we of Hull House felt it was important to prove Averbuch's innocence and put a stop to the journalistic hysteria. It was a perfectly simple thing for me to persuade my chief, Dr. Ludvig Hektoen, the leading pathologist in Chicago, to make an autopsy and demonstrate the fact that all but one of the wounds in the lad's body were in the back and made by shots fired as he lay prone on his face. It was not simple, it was not even possible to induce any eminent lawyer to take up the case from that side and show that Averbuch was the victim of sudden panic on the part of a nervous police officer. Such cases are beneath the dignity of eminent lawyers. *But why should the search for truth, for the actual facts, be held so high by doctors and not even considered interesting by lawyers?*

But I think it is the laws of evidence that puzzle and confuse the non-legal mind more than anything else about the law. One is in the witness stand, doing one's best to give a clear, connected statement of what one knows. But the laws of evidence require that the simplest story be interrupted, chopped into bits, and messed up till both witness and jury are confused. What is essential to the story must be suppressed, for mysterious reasons; what is simple must be made endlessly complicated. The only explanation I have ever had for this clouding of the clear waters of truth is that our courts are still working under laws which were framed when men were tortured to make them confess, and merciful judges tried to protect them, not by overthrowing the system—lawyers never do that—but by clever shifts which would do something while seeming to do something else. This explanation seems quite valid to a lawyer. To a physician it is as if he should say, "Yes, I know it is all wrong to bleed a consumptive patient who has a fever, but you see that practice dates back to the time when we did

not know the nature of inflammation, when we thought all fevers belonged to the so-called sanguinous type of disease and must be treated by depletion."

It may be objected that I am attacking the law, not lawyers. But lawyers make the law. Somebody has called our form of government a Soviet of Lawyers, and certainly it is true that all our law-making bodies, state legislatures, Congress, the Senate, have an overwhelming majority of lawyers among their members. The committees on legal affairs are, I believe, made up of lawyers alone. So, if efforts to bring about reforms, to do away with antiquated relics, are defeated, it is only the lawyers who are to blame. In Illinois, I am told, we live under a legal system which dates back to the time of Charles the Second, but the Legislature in Springfield defeated all the proposals for reforms in legal procedure this year.

Of late years my connection with the law has been chiefly in relation to industrial poisoning, suits for damages in the civil courts. The laws of evidence work very queerly here. For instance: "On what do you base your diagnosis of benzol poisoning?"

"In the first place, on the blood count, which showed—"

"One moment. Did you make that count yourself?"

"No, of course not. The hospital intern made it, but it is here on the history sheet."

"I object. This is hearsay evidence. The intern must testify as to the blood count."

"But he has gone to California. If I cannot tell about the blood count, how am I to tell you why I thought it was benzol poisoning?"

One's own writings are hearsay evidence unless one comes into court to hold the book and show the jury that a real person wrote it.

There were some very important cases of occupational disease in New Jersey which had been investigated by a group of Boston physiologists and their report had been published. But this report could not be read to the jury before which the suits for damages were brought; the investigators had to be summoned to present themselves in person and tell what they had told in the article, and when they refused, 2 sets of lawyers came to Boston to take the evidence. That was a curious performance which none of us understands to this day. The lawyers for the plaintiffs questioned us. The lawyers for the defense interrupted practically every sentence of the story we were trying to tell, and one of

them kept repeating like a litany, over and over: "We object to that on the ground that it is immaterial, irrelevant, and incompetent." Immaterial—when it simply disposed of the whole case. Irrelevant—when it dealt with that case and that only; and incompetent—well, then, why seek our medical opinion? But doubtless this was a perfectly correct procedure. Of course it did not help to clear up the matter in hand. But then, courts never seem to be after the real truth of the matter, nor what is fair and sensible, but only bent on playing a game between 2 lawyers with the judge as umpire to see that the rules are observed, rules which were made centuries ago by men no wiser than themselves. You would think a judge would pride himself on making an original decision, but not at all. He seems to feel safe and happy only when he can find a precedent for everything he does—that is, find something that somebody else once said about a case that resembles this one.

Another curious survival from the past is seen in the attitude of the legal profession toward modern science. Here the lawyers are absolute fundamentalists; they cling to the wisdom of the Fathers and will have none of that subversive thing, the newer psychology. When it comes to the vast advances made in our knowledge of the bases of human conduct, of the actual way the human animal is motivated and acts, the law ignores them as if nothing had been learned since the days of St. Thomas Aquinas. Take what is called "consciousness of guilt". So far as I can see, lawyers and judges still believe that confusion is an evidence of guilt and lying, while fluency and aplomb show that the man is innocent and telling the truth. How often have I watched in helpless misery an inexperienced, timid witness break down under the ruthless handling of the opposing lawyer, while the witness who I knew was lying gave a smooth, consistent, unshakable story. And the jury is led to believe that truth is always calm and unafraid, that guilt is panicky and confused.

In the old days of melodrama I remember a poster that was displayed outside a theatre on Halsted Street. It showed 2 men at a table, one starting back in horror as a waiter placed before him a platter with a bloody human head on it, the other leaning forward intently watching him, and saying: "I have always maintained that if a murderer were suddenly confronted with the severed head of his victim, he would be startled into betraying himself." Apparently, if he were innocent he would view it with complete nonchalance. But

that is good psychology in a police court. I have sometimes wanted to ask the gentlemen of the jury how they would act if they were suddenly challenged to say what they were doing at 8.30 p. m. 2 weeks ago Thursday?—knowing that a jail sentence might hang on the answer.

Then, take identification. Think how many times one makes mistakes with people one knows, and then imagine identifying a stranger one has seen only a few moments. For some 7 years I befriended a Negro convict who served that long sentence because of the cocksureness of a young girl and the ignorance of the simplest rules of psychology which obtains in our courts. The girl was frightened one evening at dusk by seeing the face of a Negro at a window which she thought he was trying to open. She instantly screamed, and he disappeared. The next morning she saw a Negro washing down the steps of a store and denounced him as the would-be burglar. Her testimony, so the Negro's lawyer told me, could not be shaken, and the court accepted her identification and sentenced the man for attempted burglary.

As for me, I know I can discuss a purchase with a saleswoman, go away for a few minutes, come back for my package, and be quite unable to pick her out from the bevy of beautifully tinted and marcelled young ladies behind the counter. As for recognizing my Red Cap—can anyone? I am driven to recognizing my luggage. But the criminal courts believe that a girl in a state of wild excitement, looking down from the second story of a factory on a swiftly carried-out murder, can identify some days later the men who did it, although she never had seen them before.

Of course the psychologist of today calls all this absurd, but criminal law has nothing to do with psychology—nor with psychiatry. To a doctor it is supreme effrontery for lawyers to claim the right to pass on the question of insanity. Think of their saying: "The legal definition of insanity and the medical definition are quite different." Who, pray, is competent to make a definition of mental disease?

And so, I submit that medicine, no matter how imperfect, is a silvery pot when compared with the black kettle—law. Moreover, it has the supreme virtue of knowing it is imperfect and of grasping—almost too quickly sometimes—for what is newer and better.

Doctors, of course, are very fallible human beings, but if they have any ability at all they do grow in wisdom as the years pass; they discard what they learned as students, and

accept what modern research gives them. No doctor could possibly rise high in his profession if he shut his mind to all new ideas. But with the lawyers it is not so. Amazing as it seems, I have been assured by lawyers that it is quite possible for a man to attain to the highest legal position in the land without ever having changed his mental attitude on any important point since he graduated from the law school. *And if that is not an indictment of a profession, I should like to know what is?*

In Lighter Vein

Kindness to Nuisances Week

Wife (as husband is leaving)—"Dear, will you remember to bring home something for the rats this evening?"

Hub.—"Something for the rats? Certainly not! If the rats can't eat what we have in the house, let them leave."—Boston Transcript.

Swell Degree

"What is your daughter working for at college an M. A.?"

"No, an M-R-S."—Buffalo Courier-Express.

Police!

"Now," said the hypnotist, "I shall make this man forget everything."

"Hold on," yelled a man in the back row, "he owes me \$10."—Answers (London).

Completely Cured

"Do you guarantee results in your nerve treatment?" asked the prospective patient.

Specialist—"I do. Why a man came to me for nerve treatment, and when I had finished with him he tried to borrow \$50."—Jokesmith.

Gates Ajar

With Violet cuddling in his arms,
He drove his Ford—poor silly,
Where once he held his Violet,
He now holds his lily.—The Sour Owl.

To Clean It. of Course

"Mummy, why does it rain?"

"To make things grow. To give us apples, pears, corn, flowers—"

"Then why does it rain on the pavement?"—Schweizer Illustrierte.

Birth of a Beautiful Friendship

'Twas in a restaurant they met,
Romeo and Juliet.

He had no cash to pay the debt,
So Romeo'd what Juliet.

The Baptist.

Shy of Gas

Dentist's daughter—"Well, dear, have you asked father for my hand yet?"

Shy suitor—"No. Every time I step into his office I lose courage. Today I allowed him to pull another tooth."—Boston Transcript.

Lighthouse Observations

THE CANCER PROBLEM

With the summer vacation period drawing to a close, it is fitting that we begin to think about the year's most active work period, with a view to determining what particular subject in the realm of preventive medicine is most urgently in need of attention, and then decide upon a course of action leading to our goal.

There is nothing new in the cancer problem, and some of us, doubtless, feel that we have read, heard, and seen enough about it to satisfy us for an ordinary lifetime. True! But! It remains with us still—the problem—and, it remains with us, even though we may have done already the full share of any one individual's work, to continue fighting this dangerous enemy, and, out of our experience, to aid those other members of the profession who may now be able to join the forces in what will necessarily be a protracted warfare. It was while in such a frame of mind that we noted in the *Pennsylvania Medical Journal* (February 1932, p. 316), an open letter to the profession from Dr. Howard A. Kelly, Emeritus Professor of Gynecology in the Johns Hopkins University Medical School, and read as follows:

"Since the beginning of the century there has been a remarkable increase in the duration of life of the average individual. This means that more and more people, brought through the diseases of childhood and middle life, are attaining the age period in which degenerative diseases are the most frequent causes of death. Most prominent among these are heart disease and cancer, and it has become apparent that the family physician, everywhere, will have to deal more and more with the problem of early diagnosis of cancer and allied diseases. Successful *diagnosis* of these conditions in their early stages is our first weapon in combating cancer. While there is no treatment recognized as curative in every case of cancer, we have at our disposal 4 effective agents which, employed judiciously, can and do cure a large and increasingly larger percentage of malignancies, if applied in the early stages. These agents are: surgery, radium, Roentgen rays, and the new electrosurgery. Each has a particular field and the decision as to which to employ in the individual case must rest in the hands of those experienced in dealing with malignant diseases. The treatment of cancer is not the problem of the family physician, it is a hospital problem because the curative agents are available only in certain centers. The part the family physician must play is, nevertheless, a most important one; namely, diagnosis in its early curative stages before it is even apparent to the layman.

There are 2 ways in which the general practitioner can play his part in the cancer war—first, he must know the symptoms and signs of malignant or premalignant disease. It is far better to suspect cancer in a dozen patients who turn out to have more innocent diseases, than to pass over one true malignancy until it has gotten beyond the curable stage. The doctor must *suspect cancer*, until satisfied to the contrary, in any ulceration which heals with unusual slowness or grows more extensive in spite of treatment; in any abnormal bleeding, especially from the rectum, bladder, or vagina (in the latter case, particularly after the menopause); in any tumor, no matter where lo-

cated. He must satisfy himself with an adequate explanation of the condition before passing it up as nonmalignant. In the second place, the function of the general practitioner is to educate his clientèle, through personal instruction, in the signs and symptoms indicative of malignant and premalignant disease and to disseminate our present knowledge of cancer and the necessity for its early diagnosis. To the general public, this can be done with propriety through the county medical societies sponsoring lectures in schools, women's clubs, and other social organizations. In this way the family physician stands as the first bulwark against cancer, both in its cure and in its prevention."

During the Cancer Campaign conducted by the Pennsylvania State Medical Society, several such letters, from eminent physicians known to have worked seriously with one or more aspects of the cancer problem, were published in its *Journal*, and the one written by Dr. James Ewing, of New York, who is, perhaps, the world's leading cancer pathologist, is now reproduced.

"While surgery and radiology are contesting ownership in the meager salvage of cancer victims, the general practitioner is standing on the side lines, wondering where he comes into the cancer picture. Unless he has performed the 50 major operations required to secure the benediction of the American College of Surgeons, or owns a Roentgen-ray machine and a few milligrams of radium, all too often his function seems to be limited to signing a yellow sheet, negotiating with the mortician, and condoling with the family. Moreover, when all the bills have been paid for surgical skill, radiation, hospital charges, nursing, and burial, there is often little left in the estate to recompense the family doctor for merely finding the case and forwarding it along orthodox channels.

Yet, to the thoughtful, alert physician there are still some important services and substantial rewards in the cancer field if one regards the problem from a broader standpoint. While modern specialization has greatly improved the outlook for the cancer patient in the minor and several major forms of cancer, yet the fact remains that the medical profession is now dealing mainly with the terminal stages of the disease and the great majority of cancer patients soon die. Most experienced cancer surgeons look back over a long record with little satisfaction when they recall the high operative mortality, the necessary morbidity accompanying cancer surgery, and the comparatively low proportion of cures. Much the same retrospect confronts the experienced radiologist. Unless the disease is discovered in its very early stages, or prevented by the discovery of pre-cancerous lesions, and the elimination of cancer-forming habits, the mortality for cancer will remain about where it is today. Here the general physician enters upon the scene, not to deal out to the patient the severe penalties now attaching to the diagnosis of cancer, but by prevention and early diagnosis to save him from suffering these penalties.

Success in this field depends not upon any technical skill or extensive equipment, but upon *acquaintance with the early signs* of cancer and the significance of the innumerable pre-cancerous conditions and cancer-forming habits and diseases.

Periodic examinations, specifically for cancer, constitute the sole means of early diagnosis, for early cancer generally gives no subjective symptoms. There may be a good deal of nonsense talked about periodic examinations, for it is ob-

viously impossible for the whole population to secure such services and many internal cancers are inaccessible. Routine returns every 6 months are quite unnecessary for the majority of adults who present no indications whatever of detectable cancer, and who are merely unnerved by constant anxiety about a danger which for them is imaginary. The Irishman was right, who, on being warned that 10% of people die of cancer, replied that the odds were good and he thought he would take them. The examinations should be adapted to the individual and directed to those hazardous situations which the experienced physician knows may lead to or indicate cancer.

Thus, a child-bearing woman having suffered lacerations of the cervix and showing a tendency to endocervicitis may have to be watched every 6 months, while another woman with a perfectly normal uterus and cervix may well go for years. One does not look for cervical cancer in a spinster but for the corporeal disease if there are uterine symptoms. A perfectly normal breast, in a woman with a normal lactation history, is a fair guarantee against mammary cancer, but lumpy breasts at any age require watching and careful decisions. A man with the tobacco habit, reinforced by bad teeth and leukoplakia, may well be watched every 3 months if cancer is to be prevented. Moles, keratoses, and chronic inflammation of the skin, burn scars, and a host of other cutaneous conditions require careful consideration at once, but hardly frequent periodic examinations. All manner of chronic disturbances in function of all the organs must be considered for their possible relation to cancer. Better than routine periodic examinations is a thorough survey of the patient, to ascertain the history of the different organs, the occurrence of previous diseases, and the handling of the patient in accordance with the data thus obtained. Every practicing physician with an intelligent clientèle can surely accomplish much by instituting a system, adapted to each patient, dealing with the cancer hazard, based upon a thorough preliminary survey, and followed up by a certain number of periodic examinations. People of all sorts will probably coöperate with such a scheme but they will probably not submit in large numbers to frequent, random periodic examinations. Since such services demand wide learning and experience on the part of the doctor the public should be willing to pay well for them.

The patient does not profit when he is discovered to have early cancer of the esophagus, lung, gall-bladder, liver, or pancreas; and not a great deal with cancer of the stomach or prostate; more with cancer of the sigmoid and rectum. It is necessary to get back of the actual established disease to cancer-forming diseases, habits, and conditions. There is just enough evidence in favor of an hereditary factor in certain forms of the disease to base special precautions on the history of an hereditary tendency, especially with neurofibromatosis, melanoma, and possibly breast cancer. Alcoholism, abuse of tobacco, poor dentition, and bad habits of eating are detectable in most cases of cancer of the esophagus and stomach. Mouth cancer would disappear if it were not for tobacco, bad teeth, and syphilis. The Jewish race is nearly free from cancer of the penis and cervix uteri. A young girl with lumpy breasts and poorly developed pelvic organs is a bad cancer risk. Laryngeal cancer rarely occurs except in a long-abused organ. All cases of chronic infection of the nasopharynx should be watched for cancer and at all ages.

Thus, to be able to advise a patient regarding the cancer hazard the physician is required to have a very wide knowledge of general medicine and the history of cancer.

Finally, the physician can perform a service of extreme value by informing himself about the results of treatment which may be available to his patient. He can thus advise or prevent unwise efforts to cure advanced cancer, may substitute palliative for aggressive measures, select good surgery instead of poor radiation, or vice-versa, and, in general, exercise a wise disinterested control of the fate of his patient, which, after all, is the finest expression of the art of medicine."

In connection with this, an article by Dr. Frederick L. Hoffman, of Newark, on "Cancer in the North American Negro" (*Am. Jour. Surg.*, Oct. 1931, p. 220) seems of special interest, and we present his conclusions:

"Briefly summarizing the foregoing, the following conclusions would seem to be justified by the evidence available.

(1) The present cancer mortality of our American Negro population tends more and more to approach the corresponding cancer death rate of the white population.

(2) The cancer death rate of the negro population has shown a persistent rise during the last 30 years and is now in marked contrast to the earlier death rates although more or less imperfectly recorded.

(3) Fragmentary evidence available seems to justify the conclusion that malignant tumors in the slave population were extremely rare, corresponding in this respect to present day conditions in practically all parts of Africa.

(4) The outstanding fact of the negro cancer mortality is the much greater liability of negro women to tumors of the generative organs, and in addition thereto a very much greater liability to non-malignant tumors of the same organs.

(5) Among the most useful data on the differential mortality of the 2 races are found in the experience of the Metropolitan Life Insurance Company for the period 1911-1922. By organs and parts these show the following illustrative differences: Cancer of the buccal cavity for males shows a death rate of 4.5 for the whites and 2.3 for the negroes. This difference is sustained by a wealth of other data indicating the decidedly lower liability to cancer of the buccal cavity on the part of the male colored population. Cancer of the stomach and liver, however, for males shows a death rate of 23.9 for the whites and 17.4 for the negroes. For females the respective rates were 28 for the whites and 19 for the negroes, suggestive of the lesser liability on the part of the negro race for both sexes. This difference unquestionably is partly at least attributable to variations in dietary habits which are deserving of extended study. Cancer of the female generative organs shows a death rate of 24.9 for white women and 38.4 for colored women. The much greater liability of negro women to cancer of the uterus, ovaries, etc., is sustained by a wealth of other data for both this country, the West Indies and Africa. Cancer of the male breast shows a rate of 0.1 for the whites and 0.2 for the negroes. This conclusion is also supported by other data suggestive of certainly double the liability of negro males to cancer of the breast, which, however, is an extremely rare affection. Cancer of the female breast shows a rate of 11.7 for the whites and 14.6

for the negroes. This higher liability to cancer of the breast is rather in contrast to general conceptions as to the relation of cancer of the breast to habits of breast feeding. So far as I know, negro women much more generally nurse their babies, even to their second year, while the practice of bottle feeding is apparently much more common among white women. Other causative factors, therefore, must enter into the greater liability of negro women to cancer of the breast than breast-feeding habits. Negro women also wear much less obstructive clothing than white women and yet they suffer more from cancer of the breast, which is very often attributed to the wearing of corsets or tight lacing.

(6) Cancer of the skin prevailed at the rate of 2.1 for the white males and 0.7 for colored males. For females the rate was 1.6 for the whites and 0.8 for the negroes. This conclusion is also supported by much other evidence suggestive of the protective value of skin pigmentation. Of special importance on this phase of the problem are the observations on Melanosis by Dr. W. G. Spencer in his Bradshaw Lecture in 1923, illustrating the importance of pigmentation in the etiology of new growths. All the authorities whom I have consulted on the subject seem to hold to the opinion that the colored races are less liable to skin cancers on this account and certainly this view seems to be supported by the available statistics. Paul, in his treatise on 'The Influence of Sunlight in the Production of Cancer of the Skin' observes that:

'The pigment of the skin stands as a sentinel, guarding the underlying tissues from the baneful effects of sunlight. In the white races this pigment is confined for the most part to the periphery of the cells of the basal layer of the epidermis and to the lowermost stratum of the prickel-cell layer, while the pigment granules may also be found in the interepithelial lymphatic spaces, and in the fusiform connective tissue cells of the papillary body. In the dark races, Macleod states that pigment is to be found as high up as the transitional layers of the epidermis, as well as in some of the connective tissue cells of the superficial portions of the corium. But the white races have the power of reacting to the external stimulus of light with an increase in the amount of pigmentation. The common occurrence of these cancerous and pre-cancerous diseases of the skin in Australia is to be regarded as normally destined to be occupied by a colored race.'

The subject of the occurrence of skin cancers in Australia has been exhaustively studied by Dr. Herman Lawrence, who has made a number of valuable contributions to this phase of the problem, but it would carry me too far to enlarge upon it. In any event, cancer of the skin constituted only 1.4% of the negro deaths from cancer in the United States during 1923-27. In the total American population in 1927, this proportion was 2.8%. Thus there is a marked difference, in favor of the negro, in cancer of the skin, deserving of consideration.

(7) As regards diagnosis, it goes without saying that in many cases the whites in this respect have a great advantage on account of earlier and better treatment. But this conclusion hardly applies to the major portion of the colored population living in our large cities. The negro shows no aversion to making use of hospital facilities and in some instances is probably more ready to go to institutions than a white person. The statistics

in this respect for New Orleans are quite convincing. In the matter of autopsies, however, there is a lesser chance of a correct final diagnosis in the case of the negro which probably somewhat impairs the value of the general statistics.

With these observations, I conclude an inquiry into a most important phase of the general cancer question. I cannot too strongly emphasize my convictions that a thorough study of cancer in the American Negro and collateral studies of cancer in the negroes of the West Indies and Africa would lead to very important conclusions. It is to the credit of Dr. Matas that he should have been among the first to emphasize the racial differences, and I consider it a great privilege to be permitted to contribute to this interesting symposium of his outstanding work as a physician, surgeon and benefactor of mankind.

Public Relations

TRAVEL AND TRAFFIC BY AÉROPLANE

(From a recent issue of the N. Y. Times.)

It has been shown elsewhere that development of the aéroplane in a commercial sense, so that passengers and freight, both, may be carried profitably, would open a new field of work for physicians and demand an associated development of medical men who may be interested in such special work. The New York Times published recently a statement regarding the rapidity with which commercial flying is developing, and gave figures of a surprising nature; at least, they were to us, and suspecting that some others among our readers might be as unfamiliar with the facts, we present them (changed only by the use of italics to emphasize some points) herewith:

The number of aëroplanes going and coming at the Newark Metropolitan Airport daily, is 89—more than the combined schedule of Croydon, Le Bourget and Templehof.

The Newark Aërdrome has, in fact, become the busiest in the world.

Contrary to general belief, we have many airports which surpass those of Europe. Newark, Camden, Chicago and Los Angeles—4 in number—have daily schedules in excess of those at Templehof, Europe's busiest port. Cleveland, fifth in order of activity here, equals the latter with 42 daily schedules, 9 ports in the United States exceed Le Bourget in traffic, and scores exceed Croydon.

Passenger mileage for the first third of the year in the United States increased more than 30%; while express poundage doubled. Only the air mail showed a decline—4%—which was small as compared to the drop in first-class mail in general. The Dutch, the Swiss and the Italian air lines all show gains, and Imperial Airways, ready to put into service its new, fast monoplanes for the long run down the spine of Africa, reports record passenger travel on both its long-haul and cross-Channel routes.

Mail planes now cover more than 110,000 miles over 26,000 miles of airways in the United States every 24 hours. One of our air transport systems, United Air Lines, carries nearly twice as many passengers and 9 times as much mail each month as the Lufthansa, the German system which sets

the pace for Europe. During a 30-day period this American system flew 1,125,000 miles, as compared with 320,000 for the German. One need no longer make a trip abroad to become air-minded.

NOISE AND HEALTH

(From N. Y. Med. Weekly, May 21, 1932.)

When Commissioner Wynne created the Noise Abatement Commission he was not engaged in the popular political pastime, unwittingly originated by Cervantes' famous hero, of tilting with windmills. Noise in its modern urban manifestations is a distinct menace to health and comfort. It is a nuisance that can be curbed by popular education and governmental action.

After almost 3 years of study and observation, the Noise Commission has classified the sounds that can be eliminated from the city's din. To give effect to this purpose, it has drafted an ordinance that would give the police power to do away with virtually all the preventable sounds that now add to the stridor of metropolitan life. At the present time anti-noise regulations are so distributed throughout the Code of Ordinances that it is practically impossible for a policeman to know what sounds violate the law. Many of the newer noises that assail our ear-drums and nerves are not covered at all in the old statutes. The amendment proposed by the Abatement Commission assembles and modernizes all the provisions relating to preventable noise in one ordinance. It provides for easy and effective enforcement by a system of administrative fines.

There can be no serious opposition to the ordinance which the Noise Abatement Commission has framed. Its adoption—and enforcement—would add measurably to the comfort and healthfulness of urban life. Mayor Walker cannot refuse to sponsor a measure that will greatly improve residential conditions in New York without placing any burden on the City Treasury.

School Health Department

PROGRAM OF WORK FOR SCHOOL PHYSICIANS

Allen G. Ireland, M.D.,

Director of Physical and Health Education,
State Department of Education,
Trenton, N. J.

We welcome a return to this column and to work. In spite of a severe curtailment in operating expenses, it promises to be a busy year, if the projects now in sight are true criteria.

Greetings and best wishes to all school physicians and particularly the beginners of 1932! Let your problems be known. Present suggestions, and help us to make this monthly column increasingly valuable.

We are happy to announce that at this writing the bulletin, "A School Health Program for the Physician", is being printed. It should be ready for distribution by the time this issue of the Jour-

nal reaches you. Copies will be sent to all school physicians whose names we have.

Although 4 months have elapsed since the State Medical Society's Convention, we are still puzzled and more than a little concerned about the poor attendance at the School Physicians' Section. The cause eludes us, unless it was interests in conflict with other Sections. It is certain that our program was attractive and instructive. The papers were excellent and the speakers inspired. We are certain that the small group attending enjoyed every minute. What was the difficulty? We invite your comments and suggestions. How can we assure a larger attendance? Should we return to the first plan, of having a pre-convention session?

Most of you have received my invitation to join the American Association of School Physicians, or, at least, to subscribe to the School Physicians' Bulletin. We honestly believe you won't regret the membership if your school work is at all extensive, for the Association is most decidedly a great ally in time of need. The bulletin articles are short, to the point, authentic, and practical. The Secretary to whom your subscription and \$2 should be mailed is Dr. William Howe, New York State Department of Education, Albany, New York.

If perchance you are interested as a parent or a citizen in "school safety" work, we announce that "School Safety Organizations", a bulletin published by the New Jersey State Department of Public Instruction, Division of Physical and Health Education, is available.

For physicians who are members of boards of education we also announce that a pamphlet entitled "Standards in Health and Safety Education" is now ready for distribution.

OBJECTIVES OF THE PHYSICIAN'S PROGRAM

Local circumstances will govern the ultimate selection of goals. It is sufficient here to suggest those common to many school systems.

- (1) To establish a program of activities that will best utilize the talent of the physician.
- (2) To assist the school administrator with the hygienic and sanitary maintenance of the building: by holding regular inspections, by reporting conditions and making the necessary recommendations for their correction, and by suggesting a code of instructions covering the duties of janitors.
- (3) To advise teachers regarding the application of the laws of hygiene to the management of the classroom, and to the teaching process.
- (4) To assist the school administrator in devising a code of rules and procedures pertaining to the prevention and control of communicable disease.
- (5) To establish a program of examinations and inspections designed to inventory the health needs of the pupils.
- (6) To devise with the assistance of the school administrator a system for bringing the pupil health needs to the attention of parents, family physicians, dentists, and teachers.
- (7) To determine with the school administrator what policy to adopt concerning correction and treatment under school auspices.
- (8) To cooperate with teachers, heads of departments, and supervisors in providing special health programs for selected cases.
- (9) To direct the professional work of the school nurse.

State Health Department

DEPARTMENTAL ACTIVITIES CONCERNING INFANTILE PARALYSIS

J. Lynn Mahaffey, M.D.,

Director State Department of Health,
Trenton, N. J.

Preparations have been set in motion by the State Department of Health to collect additional blood from recovered patients of infantile paralysis, to be used in a treatment serum to be injected into those now suffering from the disease.

The Department will obtain from the Crippled Children's Commission a list of those willing to donate their blood. Dates for the clinics in various cities will be announced shortly.

The appeal for blood at this time is due to the drain on the Department's reserve of the serum, which is supplied to physicians for use in private practice.

Only the blood of former sufferers from this disease will be sought by the Health Department Officials of the Department are in receipt of many offers from adults, who have not suffered from the malady.

A cautionary word has again been issued by the Health Department to parents not to become alarmed over the infantile paralysis cases. The Department pointed out that for the past 8 weeks a total of 190 cases has been reported, principally from South Jersey, as compared with 625 cases for the similar period last year.

Arrangements have been made by the state with a nationally known laboratory at New Brunswick to make the treatment serum without cost to the State Department of Health.

An agreement has been reached with the Philadelphia health authorities to notify them of the transfer of infantile paralysis cases from South Jersey to Philadelphia. A check-up system has been inaugurated to take care of transfer of actual and suspected cases of the disease.

The Department has appealed to physicians and boards of health in South Jersey to conform with the agreement between the State and Philadelphia Health Departments. A circular addressed to the physicians and health boards of South Jersey said:

"During the past few weeks the Philadelphia Health Department has notified this office of a number of cases or suspected cases of poliomyelitis which have been removed from New Jersey to homes or hospitals in Philadelphia without the consent of any health department, either for the removal or admission of the patient to another municipality or state.

You will doubtless agree that in principle such a practice is not good. At the same time, we all appreciate the desire of parents to take a sick child home or to a hospital as promptly as possible.

At a recent conference between representatives of this Department and the Philadelphia Health Department, a plan was arranged whereby permission may be secured at any hour of day or night for removal of cases or suspected cases from New Jersey to that city.

For permission, call the Division of Communicable Diseases, Locust 0290.

Physicians and boards of health are urged to carry out this plan by observing the following

practice when removal of patients to Philadelphia is desired:

(1) If the patient is under quarantine: The permission of the Philadelphia Health Department should be obtained before taking the patient into the city. Such permission may be secured by calling the number given above, Locust 0290. Local boards of health in New Jersey should not allow patients to be removed from their municipalities to Philadelphia until such permission has been obtained.

(2) If the disease is suspected to be infantile paralysis but a definite diagnosis has not been made, the patient may at once be sent home or to a hospital but before this is done, the attending physician should notify the Philadelphia Health Department of the name of the patient and the address to which he is being taken. The local board of health in New Jersey should also be notified as promptly as practical."

Communications

SOCIAL INSURANCE IMPOSSIBLE TO ABOLISH WHEN ONCE ESTABLISHED

(Tenth of a series of Communications dealing with group health insurance.)

Edward H. Ochsner, M.D.,
Chicago, Illinois

(Continued from September Journal)

The worst feature of Social Insurance is the fact that when this parasite once gets its suckers well fastened into the vitals of a nation nothing short of either national bankruptcy, a dictatorship, or a revolution will be able to loosen its hold.

Germany, having had Social Insurance on its statute books the longest, has for a considerable time been on the verge of bankruptcy. While other facts are operative, we believe that the billion dollars which Social Insurance costs the nation every year is one of the chief reasons why Germany is unable to make a satisfactory "come-back" to normalcy.

England is not much better off. The chief reason for England's present difficulties is the terrific burden of taxation which she has to carry. One writer says: "A complete understanding of the problems confronting England at the present time involves going back to 1909 when we had just adopted old age pensions and destroyed the foundations of thrift." In 1911 England introduced National Insurance when 3% of its workers were unemployed. After 20 years of operation of the act, 17% of her workers are out of work. As a partial explanation for this condition let us cite just 1 example from among scores and hundreds that could be given. A manufacturer found that his orders were only sufficient to give work to all his employees 4 days a week so he called his workers together and told them the facts. The workers, however, insisted that they would work only 3 days a week in order that they could draw the dole for the other 3 days. An English writer commenting on this says: "It is a great mistake to worry about the much discussed abuses of the system. It is the system which is fundamentally wrong and abuse is inseparable from it."

To get an idea of the tax burden which England is carrying, we need but cite facts. In that country all incomes of \$750 per annum are taxed 25%. Higher incomes carry an additional surtax. Increased taxes have increased the production-cost of practically all articles of manufacture and, as a consequence, have actually increased unemployment because English industry carrying this extra burden has not been able to compete with other countries in the world markets. In spite of these burdensome taxes and in spite of the fact that living expenses had gone down 11.5%, the recent labor government refused to cut the sick benefits 10% and put the nation to the expense and turmoil of a national election practically on this issue alone.

The countries just cited are not the only ones encountering similar difficulties. A recent newspaper article contained the statement that there are more than 150 federal boards and commissions in Washington, each with 3 or more members drawing salaries and each with a bevy of clerks most of them just drawing salaries. Many of these were created during the World War. When a few farsighted individuals remonstrated against the appointment of so many boards and commissions they were assured that they would all be abolished at the end of hostilities. It is now more than 14 years since the signing of the Armistice but not one board has as yet been abolished.

Another illustration is the franking privilege to country newspapers. This privilege was extended to them when it was deemed desirable to disseminate news and information to rural inhabitants particularly to detached settlements. It was a wise and legitimate enactment at the time but now it is just a plain nuisance and yet no Congressman would dare to suggest its abolition. It is costing the taxpayer and consumer a great deal of money and serves no useful purpose. A town of 10,000 and even fewer inhabitants usually has 2 and sometimes 3 local papers all enjoying this privilege. The local merchants are compelled to advertise in all of them, the expense of which must of necessity be passed on to the consumers. Incidentally this favors the mail order house to the detriment of the local merchant.

There are many reasons why it is almost impossible to repeal the laws governing such practices. One reason is that executives and legislators do not want them repealed because it reduces the power which they derive through political patronage. The more patronage the individual in office has at his disposal, the more difficult it is to dislodge him. Even today it is very difficult to defeat a public office-holder with large political patronage, no matter how inefficient he may be, except by another who either already has large political patronage or who promises jobs to his supporters irrespective of their qualifications. Thus in many elections the voter is simply left to choose between 2 undesirable candidates. Already the number of payrollers has become so large and so politically active and influential that they yield great power in both political parties. If we then add compulsory health insurance we will add further thousands to the lists of our civil employees. Those who are not in government employ will be powerless to control government and their only function will be to pay the taxes which others impose upon them. Instead of increasing the number of government officials and employees, the ideal to be constantly kept in mind and striven for in this country is to permit the private citizen to perform all those functions that he can best

perform and that make for independence, self-reliance, and strength of character and to have the government do only those things which the individual cannot do satisfactorily. We maintain that centralization in government and paternalism have already gone much too far and that Social Insurance would simply be another step in the wrong direction.

Another reason why it will be difficult to repeal such laws is the fact that men in the different services of the government do not dare to expose its faults for fear of being accused of disloyalty. Reports must be couched in the most mild and ineffective language possible and then they must not be released to the public but allowed to die as still-births in the departments. We all know what happened to General Mitchell who dared to disregard these rules. Major-General Robert Alexander also tells in the introduction to his *Memoirs of the World War* just how this worked in at least one other instance.

In most countries which have Social Insurance such laws were first suggested and urged by well-farers, uplifters, and visionaries who unwittingly played into the hands of practical politicians. Even now few seem to realize that bureaucracy in a republic may become just as unreasonable, oppressive, and ruthless as a despotism.

It will be interesting to see whether we shall be able to profit by the experience of others or whether as a nation we belong to that class of human beings who can learn only by dire personal experience or from national disaster.

(To be continued in November and concluded in December)

CONCERNING NERVOUS BREAKDOWN

(A letter to the Editor from Dr. George P. Boulton, of Cranbury, N. J.)

There frequently is an unwillingness on the part of the family to acknowledge a patient's condition frankly for what it is, viz.: a *mental* breakdown. An unwarranted fear of commitment to a *state institution* or a dread of the stigma attaching to an admission that the patient is insane, leads many (including even some physicians) to classify a *mental* condition as a *nervous* condition. A *nervous* condition would be characterized by bodily tremors or paralysis; a *mental* condition, by false ideas. The first class seldom are, the latter frequently are, dangerous to themselves or others. A failure to differentiate which it is, frequently results in no preventive measures being taken to avoid a catastrophe. Recently, in the case of a prominent woman living near New York, who was for 7-8 yr. known to be mentally abnormal, nothing appears to have been done about it (although financial means were not lacking) until she killed her 2 children and herself. The daily news records the cases of a score or more persons in the past few months, who were allowed to retain their usual contacts (although known to be insane) until suicide or some other tragedy ended the story. To call a *mental affection* a *nervous breakdown* may prove disastrous. Prompt recognition of the fact that the patient has ideas of persecution; or is depressed; or is otherwise abnormal mentally; may save much heart-ache later. The State Hospitals for such patients are all over-crowded. Private Sanatoriums are usually above the means of the average person, in these times especially, and are now running below capacity. No doubt

many of them would be willing to take a number of patients on a "non-profit" basis; somewhat higher than the State Hospitals charge, but much less than their own usual rates, if people would explain their financial circumstances when making inquiries instead of merely asking the rates. If they would do this they could continue to employ their present quota of nurses and attendants, and would enable many patients to escape the almost certain disaster which awaits them if allowed to continue at large. It would not be too much to expect private sanatoriums, during the present economic depression, to devote 50% of their beds to this non-profit service, utilizing beds which now are giving no service and further tending to reduce unemployment.

AMERICAN BOARD OF OBSTETRICS AND GYNECOLOGY

Announcement of Coming Examinations

The next written examination of the American Board of Obstetrics and Gynecology will be held on Saturday, October 22, at 2 p. m., in 19 different cities of the United States and Canada. In order to reduce traveling expenses for candidates, special arrangement may be made through the Secretary for taking the written examination at any city other than those regularly specified where there is a Diplomate who can be empowered to conduct the examination. This arrangement does not apply to the general, clinical examination.

The next general, oral and clinical examination, is to be held in conjunction with the meeting of the Pacific Coast Society of Obstetrics and Gynecology at Los Angeles, California, on December 7, provided there are a sufficient number of applicants.

For application blanks and other information, address Dr. Paul Titus, Secretary, 1015 Highland Building, Pittsburgh, Pennsylvania.

SPECIAL ATTENTION

At the Annual Meeting of the State Society the dues for the new year were set at \$10, and a special provision was made to the effect that newly elected members during the period between October 1 and December 31, 1932, should be charged only $\frac{1}{4}$ of that sum (\$2.50) to cover that quarterly period.

Woman's Auxiliary

FALSE AND MISLEADING ADVERTISEMENTS

The Editor has repeatedly suggested a task for the Auxiliary, as a State organization, or by County branches, in the nature of a fight for abolition of deceptive advertising. An additional argument, endorsing our statements regarding the need for such a fight conducted by some organization interested in health matters has been found in an article from the pen of F. Swann Harding, and published in *The Nation*, May 20, 1931, page 555; from which article the following abstract was taken, and which has been changed only by italicizing selected words or phrases, for effect.

A government study was recently made of the

material advertised as *fine-quality honey* sold by 411 retail stores in New York City, and that study at once disclosed *how easy it is to fool the American people on quality and quantity*, provided your advertising and your containers are attractive. When sold in *tins*, honey was found to be from 10 to 15 cents cheaper per pound than when sold in *glass jars* of the same size. In 5 lb. tins honey sold at a rate of 23 cents a pound, while in 2 oz. glass jars it sold at \$1.20 per pound. To show how discriminating the consumer is, it is startling to learn that both 2 and 5 oz. glass jars of honey regularly retailed at the same price, while 14 oz. containers were very popular because the consumer almost invariably mistook them for full pounds, in spite of the fact that the net weight appeared plainly marked on each container. In some cases, $1\frac{1}{4}$ oz. glass containers of honey sold for more than 16 oz. containers in the same store.

When governmental regulation of advertising truth was recently proposed, protestants exclaimed: "From the standpoint of its application and its effects, such censorship would be costly, troublesome, and unnecessary. From the standpoint of principle, it would run counter to the tide of American ideals." This comes very near to stating a great truth. *It does actually seem that a demand for truth in advertising would run counter to the tide of American business ideals.* The research department of the National Confectioners' Association itself, in its frenzied eagerness to combat the increasing popularity of the cigarette, actually sponsored in advertising the grotesque statement that eating sugar would make you thin, because "fats burn in the flame of the carbohydrates". This phrase, sometimes used by physiologists to describe picturesquely the interrelationship in the intermediary metabolism of dextrose and fatty acids, is here used to give *pseudo-scientific warrant* to the idea that a diet high in sugars (such as candy) would effectively inhibit obesity. The reference cited a text-book of Bodansky's as authority; the author immediately wrote to medical and scientific journals denouncing the use of his work.

This is in line with the general spirit of much American advertising. There has long been a celebrated ginger ale which featured in its advertising the statement that it had been "aged 6 months". This was said to make it taste like good old French wine. The prospective consumer was asked if he would eat a green apple and was then implored, for his health's sake, never to drink green ginger ale. All this seems too grotesque to believe, but when printed with a properly signed certificate by a distinguished "scientist", with his degrees attached, this rigmarole had decided sales value or it would not have been used. Then in the summer of 1929 the manufacturers "signed a stipulation agreement with the Federal Trade Commission to discontinue advertising its products as 'aged 6 months' unless and until such time as this beverage is in truth and in fact aged for the length of time specified. The respondent agreed to discontinue use of the statement 'aged 6 months', or any other statement implying that its product was and is aged 6 months, when such is not the truth". There seems some legalistic excess verbiage here but the point is plain. The ale was not aged 6 months. It was advertised in the best magazines as aged 6 months. Its advertising bore the certifying signature of its chemist to this effect. It found sales value in such advertising. Does advertising need regulation?

The same year: "The manufacturer of a tooth

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A SCHOOL HEALTH PROGRAM FOR THE PHYSICIAN

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It should be understood at the outset that the following program is a compilation of activities taken from many programs. It is suggestive of what is being done and it is, therefore, offered to the schools of the state as a guide to the evaluation and construction of local programs. These *recommendations* should not, however, be construed as state *requirements*. There are no mandatory features other than those specified in the school laws or those established locally by boards of education.

The program in its entirety represents an ideal. This should be understood by the reader lest he become confused in thinking of its application to local conditions. As an ideal, it is the goal toward which efforts may be directed. As a series of standards, it affords a measuring device with which existing programs may be compared. It is conceivable that certain activities may be wholly unsuited to the needs of some schools but, on the other hand, they may be exactly applicable elsewhere. Local circumstances, known needs and objectives are the criteria upon which the selection of activities must be based. To that end the following outline is suggestive of the possibilities.

HEALTH AND THE PHYSICIAN IN EDUCATION

The School Health Program is a natural product of a natural development. Education and medicine, each at one time a separate and distinct art, joined forces in a common interest—the child. It was an inevitable, hence, a natural, development. Of the changes in education perhaps the most outstanding feature has been a shifting of emphasis from the subject matter learned to the subject doing the learning. Recognition of the child as a person, a personality, an individual, dominates the school today. The field of study is life itself. The objective is to live well, richly, and wisely.

During the same period, medicine advanced to new aims and new procedures. The great field of public health came and grew. Infinitely more is known about the child, mentally and physically, than could have been anticipated not many years ago. Bring the two—education and medicine—together, and the inevitable result is the school health program; not a thing apart from the educational curriculum, but a part of it, an integral part, interwoven in the fabric of the school. Thus, the school today is concerned with the lives, not the schooling alone, of a mass of individuals. It aims to prepare those individuals physically for the work and play of living, to withstand the encroachment of disease, and to equip them mentally to look ahead with hope and good cheer. It seeks further to preserve and improve the potentialities that mean good citizens and good parents. It is in every way quite truly an education of and for the physical aspects of life.

In this new education, it was certain that

the physician, the dentist, the nurse, should be called, along with the art teacher and the music teacher, for each has something to contribute to the richness and fulness of right living. And more recently, the psychiatrist has joined the school ranks because we are now aware of the large number of the mentally-ill or the potentially mentally-ill among the school enrolment.

AIMS AND OBJECTIVES

Statement of purpose. The primary purpose of the State is to establish and further a health program for the public schools from which the pupil will derive an increased capacity for education, freedom from handicaps to growth and development, the habits and attitudes that constitute healthful living, a knowledge of the hygienic conduct of life and the ideals of health that make for rich and worthy living for the family and community groups as well as for self. Our general aims may be classified as follows:

(1) To apply the principles of healthful living to the educative or schooling process.

(2) To protect the physical and mental health of the pupil while at school.

(3) To establish measures for determining the health status of pupils, particularly with regard to deviations from the normal, whether physical or psychologic.

(4) To promote, with the coöperation of the home, measures for the removal or correction of handicapping physical and mental defects or health conditions.

(5) To establish in the school preventive measures that will lessen the incidence of communicable disease.

(6) To provide for training and instruction of pupils in the activities and principles of healthful living.

(7) To establish and maintain school buildings and equipment that comply with the laws of hygiene and safety.

(8) To establish in the school procedures necessary to insure safety of the pupil.

Objectives of the physician's program. Local circumstances will govern the ultimate selection of goals. It is sufficient here to suggest those common to many school systems.

(1) To establish a program of activities that will best utilize the physician's talent.

(2) To assist the school administrator with the hygienic and sanitary maintenance of school buildings: (a) by holding regular inspections; (b) reporting conditions and making the necessary recommendations for their correction; (c) suggesting a code of instructions covering the duties of janitors.

(3) To advise teachers regarding application of the laws of hygiene to management of the classroom, and to the teaching process.

(4) To assist the school administrator in devising a code of rules and procedures pertaining to the prevention and control of communicable disease.

(5) To establish a program of examinations and inspections designed to inventory the health needs of pupils.

(6) To devise, with assistance of the school administrator, a system for bringing all pupil health needs to the attention of parents, family physicians and dentists, and teachers.

(7) To determine with the school administrator what policy to adopt concerning correction and treatment under school auspices.

(8) To coöperate with teachers, heads of departments, and supervisors in providing special health programs for selected pupils.

(9) To direct the professional work of the school nurse.

TRENDS IN SCHOOL HEALTH WORK

The growth of the school health program has been one of progression and breadth of vision. *Starting with the single thought of disease detection*—hoping thereby to prevent contagion—the program has steadily grown in purpose and procedure until *it has become one of the major administrative divisions of education*.

Health is now accepted as one of the principal outcomes to be sought through education. Happiness is another, but happiness is an emotional state conditioned by healthful living. Still another is vocational fitness which, likewise, is a dependent quality. Control, judgment, social adjustment, integration of personality, citizenship and character, among others, are held forth as desirable goals of education. But, like happiness, each is to a

large degree possible only when good health in its physical, mental, social, and moral aspects is present. Success in the traditional activities of education—such as the 3 R's—is so obviously modified by the state of health as to constitute a principal argument for a strong health program. Good vision and hearing are prime essentials. Of great importance are attentiveness, concentration, interest, and similar qualities—all influenced markedly by nutrition, sleep, absence of irritations and annoying aches, and nervous stability.

Thus, the effect of healthful states on the capacities and abilities of an individual has, as the relationships have been brought to light, led to developments in school health work. The physician and the nurse are being brought closer to the teacher. Many school buildings are exemplary with respect to sanitation. The endeavor to bring the parent, teacher, physician, and pupil together is meeting with greater success. Health examinations are better and more purposeful. Health is no longer regarded as a thing apart from education but, instead, a consolidation is taking place that is making for unity of purpose on behalf of a common beneficiary—the child.

COMMON WEAKNESSES

This list is included for emphasis. It will serve to focus attention on a few conditions regarded as weaknesses. Certain items concern the school authorities. Others refer to the physician and his work. No one is at fault because these conditions exist; it simply means that we think in advance of action. A natural process of evolution is going on but it requires time to bring about the transition from vision to reality. Hence, these weaknesses are not pointed out with critical intention. They are mentioned here to invite thought, and in the hope that subsequent change will be accelerated. The order of the items has no particular significance.

(1) Persistent use of the terms *medical inspection* and *medical inspector*. The word *medical* reminds one of medicine or drugs; hence, *sickness*, a thought that is negative in effect. Likewise *inspection* is odious to most people, because it conveys the idea of *prying*

into. Preferred terms are *health supervision* and *school physician*.

(2) Inadequate compensation for the services expected of school physicians. It is, in turn, a circumstance usually growing out of inadequate funds for all school health work.

(3) Undue emphasis upon the concept of disease as compared to the positive ideal of healthful, joyous living. Too large a part of the program reflects the thought that *there may be something wrong*.

(4) The absence of legal permission to remove a pupil's clothing; hence, inability of the physician to make a thorough examination in some instances.

(5) Lack of definite objectives and of a program. Too frequently, health activities are superficial in scope and perfunctorily performed. The cause is usually a lack of purpose. Given definiteness of purpose, a stronger program naturally follows.

(6) Placing of undue stress upon attendance through the use of attendance contests, statistical ratings, and awards.

(7) Inadequate facilities and equipment for proper execution of the program.

(8) Absence of one parent and of the teacher from the examination.

(9) Inadequate preparation of teachers in the field of health supervision and education.

(10) Lack of a coöperative working basis between the school physicians and the family physicians of a community.

(11) Disagreement on standards and methods of ventilation.

(12) An insufficient number of school nurses.

(13) Excessive demand upon the physician's time for routine work and visiting

(14) Failure to require and provide for the examination of athletes in a more thorough manner than for other pupils.

(15) The practice of closing schools in time of epidemic.

(16) Insufficient information concerning the purpose, content, and educational outcomes of physical education.

(17) Lack of agreement as to what constitutes a handicapping defect, or the degree in which a given defect may handicap a pupil.

(18) An incomplete system of records and reports.

(19) Failure to apply the principles of health and hygiene to the teaching process and the classroom situation.

GENERAL PERSPECTIVE OF THE PHYSICIAN'S PART

This section is devoted to a general view of the principal parts of the physician's school program. It is not a list of duties but an attempt to picture the factors determining their selection.

Concerning physical handicaps. Learning, whether a feat of memorization or acquiring experience, whether forming a habit or developing a point of view, is a psycho-physical process. There is no separation of mind and body. It is the physical child who goes to school, and it is the physical child who does the learning. Should that physical organism be defective or below normal in its running condition, it is to some extent handicapped in acquiring an education. It is essential that teachers know of deficiencies in order that work—play—study adjustments may be made. It is also important, in view of the purpose of education, that school authorities know of handicaps in order that they may take steps toward insuring correction for the child.

Concerning types of pupils. The child, whether lethargic or restless, tired or active, calm or nervous, honest or deceitful, is an individual whose chief claim on the school is a right to know how to live best—happily, completely, healthfully. To fulfill that right, teachers must understand the child and his peculiarities. They must be informed of causes, and of measures of treatment. They need counsel in order to lead children away from the undesirable toward the desirable.

Concerning the mentally-ill. The potential mental case is in the public school in alarming numbers. And not infrequently, it is the school that aggravates this condition until it is too obvious to be ignored. The emotionally unstable child, the pampered child, the over-worked child, the constitutionally inferior child, and many others are present. To the teacher there may be some evidence that something is wrong. But, unfortunately, she has

accepted her class with the thought only of doing her best to impart knowledge, and so the really important thing is neglected. It is the wrong point of view. The physician, in the person of the psychiatrist, has come to classify these children and their troubles and to help with their education. The school has no greater obligation than to aid these children.

Concerning environment. Sanitation and hygiene of the pupil's environment are concerns of medical science, and, although the educator may have studied them as pertaining to his office, the school is the place for bringing the physician's knowledge to bear upon an important educational factor; educational in that the type of school environment to which the pupil becomes habituated may determine standards and ideals by which he later creates his own home; protective in so far as sanitation and hygiene prevent disease.

Concerning disease prevention. The physician's rôle in disease prevention is chiefly as an adviser, but in that capacity he is indispensable. The actual operation of the program falls to the teacher, the nurse, and the janitor; *but it is to the physician the Superintendent should turn for constructive help in building a prevention and control program.* Perhaps the single exception is in immunization work, where the physician may actively participate if such is the agreement with the board of education.

Concerning the normal pupil. The so-called normal or well pupil may be over-ambitious or the object of over-ambitious parents. He may be required to contribute to the income of the family. He may be over-zealous in athletics. There are other examples where counsel of the school physician is needed to augment the precautions of the teachers. These conditions should not be pushed into the background. To work intelligently with them is just as important as caring for the handicapped.

Concerning special cases. Among special cases are those children who are crippled, malnourished, mentally subnormal, nearly blind, nearly deaf, or who have a defective heart. For those children there are special classes and special curriculums. Each needs individual attention and care. A large share of the

work is *medical rather than instructional*, and falls within the province of the school physician, but by *medical it is not meant that treatment should be applied*. It is intended, instead, that school authorities seek medical advice with respect to the needs of such pupils, their ability to undertake school tasks, and the regimen they should follow. Such advice will enable school officials to more intelligently approach parents with recommendations as to home care, the urgency of medical attention, and the fitting of the child for a useful life.

ESSENTIALS IN ORGANIZATION AND ADMINISTRATION OF THE PHYSICIAN'S PROGRAM

Objectives are essential. It is only the activity with a definite goal that gets results. Moreover, the definition of a goal limits work to that which is purposeful, reduces the wasting of time and effort, and minimizes duplication. Objectives should be attainable, and should be ends that come within the possibilities of a program based upon known factors, such as: time, facilities, and personnel. They should be so stated as to be understood by all persons concerned.

Program. Given definite objectives, a program designed to their attainment becomes necessary. An effective school health program needs to be prepared jointly by the physician and the school administrator since it will be, by its nature, both medical and educational in purpose. It should be specific in its provisions and definite in its statement of activities and responsibilities. Even details should be included, for it is definiteness that dispels confusion and wasted effort.

The program should be in writing. From time to time during the year, and always at the beginning of each school year, it should be reviewed for needed corrections or additions.

ADMINISTRATIVE RESPONSIBILITY

Superintendents, Supervising Principals, and Principals are the administrators of the public school system. In drawing an analogy from the military organization, they are the line officers in whom executive authority is vested. Just as the army has its physicians, nurses, dentists, supply officers, and engineers,

so does the school have its staff of professional aides, janitors, supervisors, and attendance officers. In both instances the essential factor is integration or coördination. It is necessary to efficiency of operation, to economy, to attainment, to harmony, and to proper delegation of authority. To effect integration is an executive function. It falls upon the school administrator, therefore, to coördinate all units of school activity, and, to that end, to direct the work of the school personnel. Since it is basic throughout, the school health program can be no exception.

The above concerns administration of the whole program and of the personnel to a common end. On the other hand, professional technics and judgments belong to the staff specialists, in the school as in the military establishment. Thus, the medical aspect of the school health program is the peculiar province of the school physician. It is the physician's duty to apply his talent to the school problem and to report his findings and recommendations which, in turn, are applied by the school administrator to further the health and educational purposes of the school.

The direction of all professional technics employed by the school nurse is charged to the school physician, but other activities of the nurse may well come under the direction of a committee composed of the chief executive, the school physician, and the supervising nurse. The complete program including all rules and regulations, duties, and instructions should be prepared in writing and thereafter revised and approved annually. In large school systems, and wherever more than one physician is employed, it is advisable to designate one physician as head of the staff who can be made responsible for the professional program.

Time allotment. No standards are available. It is doubtful if the question—How much time should the part-time physician be required to give to school work?—will ever be answered satisfactorily. So many factors are involved that rarely will any 2 school systems hit the same average. In a given system, the program agreed upon is, of course, the only criterion. The time required to execute its provisions fully and efficiently is the

standard for that system. It can be determined only by experiment.

The employment of a full-time physician is desirable, and such is the evident trend. Increasing recognition of the place of health in education and of the enlarging scope of the school physician's work are indications that a demand for the full-time school health officer is inevitable. Small school districts will jointly provide themselves with this service.

In attempting to arrive at a satisfactory time allotment, an experiment could be carried on for one year. During the year a record could be kept of the time spent by the physician. With this as a basis, the time schedule, the salary, and the number of physicians required could be determined.

Number of physicians. City systems with well-established programs have each set standards coinciding with their respective circumstances. It is not feasible, however, to accept one ratio as a universal standard. The determining factors must be the work that is to be accomplished, the available funds, the school enrolment, and the distances between schools. Of these factors, the work program is the most important. As a general observation, it is thought that in New Jersey the school physician is responsible for too many pupils. Two remedies are possible: (1) to increase the time allotment and the salary of 1 or 2 physicians; (2) to increase the number of physicians. The first solution is preferable.

Salary. The same indefinite situation pertains to the matter of salary, but on this point there is more hope for an ultimate solution. It is possible to conceive of a state or even a national agreement being reached after an extensive survey. The units most frequently cited as the bases of remuneration are, in addition to the straight annual salary, the month, the day, the hour, the visit, and the pupil. The best and the fairest basis is the annual salary. The least desirable are the visit and the pupil. It is generally conceded that the school physician is inadequately paid. There are grounds for optimism, however, for as the school health program grows in scope and in importance, the physician will inevitably receive fair and due recognition. In time, more and more will be

expected of him. That is true, in fact, of the present. It resolves, then, into a matter of enthusiasm, salesmanship, and effectiveness. A program, especially one dealing with health, does not sell itself. There must be the persistent drive of human effort behind it. Compensation will mount accordingly.

Coördination. An important principle underlying school health work, one not as yet fully realized, is that of coördination. Every adult connected with the school, excepting secretaries and clerks, is to some extent involved in the health program. Teachers, for example, can fulfill the purpose of the school only in so far as pupil health permits. Freedom from handicaps in learning capacities and abilities is essential. Behavior and attendance are directly related to healthful states of mind and body. And the teacher's intimate daily association with pupils carries an obligation with respect to disease-control procedures and the effects of classroom hygiene.

Janitors are, by the nature of their duties, associated with an important phase of the health program. Attendance officers, particularly those with a sociologic inclination, have access to the facts concerning a pupil's home surroundings, habitudes, companions, and outside activities; or, maybe to information of value to the physician, nurse, or teacher.

Physical education teachers, athletic coaches, lunch-room supervisors, visiting teachers, and the dean of girls in the high school, are obviously dealing with the facts and acts of life that may make or mar the habits and attitudes of pupils.

It is exceedingly important that the activities of the school personnel be coördinated, and information known to one should be transmitted easily and promptly to all. It is the whole child that goes to school and it is the whole child—physical, mental, social, moral—that is involved in learning, growth, and development. Consider, for example, the total situation as it might occur in a given case. When all the facts are at hand it will be seen that possible contributions to the study can be expected from each of the following persons: parent, physician, dentist, nurse, psychologist, psychiatrist, social service worker

(or visiting teacher), classroom teacher, physical education teacher, home economics teacher (or lunch room supervisor), special class teachers, and, possibly, the attendance officers when a social service worker is not available. Given the total picture, it is then possible to advise both the parent and the teacher as to management of that child with respect to attitude of approach, understanding the pupil, work-study-play assignments, rest, diet, eating habits, and health practices.

Treatment. A definite policy with regard to the treatment of pupils at school should be established and its provisions interpreted to all persons concerned. As a general rule, the school should undertake to inspect and examine its pupils; to investigate suspicious evidence; and, to report signs and symptoms; *but never to prescribe or administer treatment.* Should minor, routine treatment ever be advisable, it must be provided—but only under direction of the school physician. Of course this does not apply in the case of *first aid*.

Exceptions to the above general rule may be advisable when, for example, such diseases as pediculosis, ringworm, impetigo, and scabies are unduly prevalent, and, because of parental negligence in seeking medical care, the organization, attendance, and morale of the school is threatened. Ordinarily, all such infested children should be excluded from school and the responsibility for treatment placed upon the parents. Exceptions should apply only to those highly communicable skin diseases and only where habitual neglect or indifference is the common outcome of exclusion.

It is generally understood that the school health service may be responsible for emergency and simple first-aid treatment. *If there is any question concerning the definition of first-aid care, the County Medical Society should be asked to compose and establish a satisfactory definition.*

Schedules. It is essential to school organization that the duties of the school physician be performed by schedule. Some flexibility is necessary because of the exigencies of private practice, but, in general, adherence to the schedule should be the rule.

SUGGESTED PROGRAM OF ACTIVITIES FOR THE PHYSICIAN

This program offers nothing that is new or radical. It attempts to retain those activities that are recognized as indispensable and to embody such new procedures as trial and experimentation seem to warrant. All the activities here presented are now, to some extent, being conducted in New Jersey schools. The time allotted to the physician and the remuneration allowed are recognized as the determining factors in adoption of the program.

HYGIENE AND SANITATION OF THE BUILDING

(1) Formulating a code of standards in classroom hygiene for the teacher.

(2) Formulating a code of standards in building hygiene and sanitation for the janitor.

(3) Recommending the purchase of equipment and supplies that will further the health program.

(4) Formulating a code of standards in cafeteria and kitchen hygiene and sanitation.

(5) Inspecting periodically all parts of the school plant.

PREVENTION AND CONTROL OF COMMUNICABLE DISEASE

(1) Directing inspections and procedures for the detection of disease and the exclusion of suspects.

(2) Directing inspections and procedures for re-admission of the pupil to school.

(3) Directing all immunizing procedures.

(4) Establishing procedures for the care of emergencies.

(5) Supervising the health of cafeteria and kitchen workers.

(6) Checking on water and milk supplies.

(7) Inspecting buildings and facilities and recommending sanitary procedures.

(8) Coördinating the preventive duties of the school staff.

(9) Advising methods for proper care of costumes and towels.

(10) Reporting cases to the board of health in accordance with code requirements.

(11) Reporting on special occasions.

(12) Consulting with community health officials.

SUPERVISION OF PUPIL HEALTH

- (1) Preparing and directing a coördinated program for pupil health supervision.
- (2) Providing for and directing the annual health examination of pupils.
- (3) Examining each pupil annually to detect physical handicaps and ill health.
- (4) Giving special medical examinations to all members of athletic team squads.
- (5) Conducting special examinations for pupils referred for specific cause.
- (6) Giving the medical examination required of applicants for working certificates.
- (7) Directing the recording and reporting of medical examination findings.
- (8) Giving general supervision to the program of follow-up procedures.
- (9) Assisting with organization of the school nurse's program and supervising the professional features of that program.
- (10) Coöperating with the department of physical education in prescribing hygiene and corrective work for individuals.
- (11) Reviewing and passing judgment on all medical reports; all requests for exemption from school attendance or from participation in school activities; and all certificates of health submitted by family physicians or other persons.

HEALTH OF SCHOOL PERSONNEL

- (1) Requiring or giving an annual health examination to persons in service.
- (2) Examining applicants for teaching and other positions.
- (3) Examining teachers returning to work after an illness or a leave of absence.

DISPENSARY AND EMERGENCY SERVICE

- (1) Recommending a policy to govern the extent of treatment to be administered at school.
- (2) Directing all first aid measures.
- (3) Establishing procedures for the care of major emergencies.

HEALTH EDUCATION

- (1) Furnishing teachers with data upon which instruction may be based.
- (2) Helping with the development of pupil attitudes.

(3) Instructing teachers on personal and classroom health practices.

(4) Conducting assembly programs on health topics.

(5) Holding group conferences with parents.

(6) Holding personal conferences with selected referred individuals.

(7) Advising pupils as to the selection of vocations.

(8) Suggesting the application of hygiene in certain school situations.

SPECIAL CLASSES

- (1) Selecting pupils for special classes.
- (2) Supervising pupil health in special class groups.

MENTAL HYGIENE

This bulletin does not include the program of the psychiatrist but is designed, instead, for the regular school physician. Suggestions on mental hygiene must, therefore, be general in character and simple in their requirements. The following are examples:

(1) Encouraging promotion of preventive and diagnostic psychiatry in the schools by recommending special personnel, special examinations, case studies, and classification of pupils according to needs.

(2) Consulting with teachers regarding discipline and behavior cases, failures and repeaters, and others, seeking to aid with known physical data and health habit history.

(3) Applying principles of mental hygiene in contacts with pupils and in the treatment suggested to parents.

PUBLICITY

The success of the school health program depends to no little extent upon public understanding. Without a knowledge of purposes and achievements, school health activities may be vague and appear superfluous to many people. On the other hand, it can be taken for granted that parents and the public are vitally interested in child health problems. It is good policy, therefore, to utilize every available means whereby the community may be kept informed of the program and results.

Although the school nurse is usually dele-

gated to be responsible for publicity, the physician should be on the alert to suggest items of importance which may serve to awaken interest or to hasten the adoption of a needed activity. It is equally essential that he suppress items that would arouse needless controversy, or be misleading, and to that end publicity material of a medical nature should be submitted to the physician for approval.

Suggested items for publicity program:

- (1) Number of successful immunizations compared to case reduction.
- (2) Findings of health examination.
- (3) Incidence of disease accompanied by information on preventive measures for the home.
- (4) Percentage of malnutrition; together with suggestions for combating it.
- (5) Earliest possible warning of a threatening epidemic; including advice concerning prevention.
- (6) Reports of vision and hearing defects and helpful comments on home hygiene.
- (7) Notes from current medical literature having instructive value for parents.

Methods and mediums through which to secure publicity:

- (1) Newspapers. Sometimes it is possible to secure a weekly column for school news.
- (2) Meeting with Parent-Teacher Associations and other clubs.
- (3) Periodic school health reports for public distribution.
- (4) Placing charts, posters, pictures, or prepared material exhibits in store windows.
- (5) Utilizing opportunities presented by National Education Week and Child Health Day.
- (6) Moving pictures.

RESEARCH

Physicians have exceptional opportunities, in doing school work, to study health problems peculiar to children. Aside from benefits accruing to the school, research is instructive and stimulating to the investigator, the community will be enlightened and, conceivably, medical knowledge will be increased or verified. Simple problems demanding solution are inherent in all phases of school health activi-

ties. The cumulative data of the health examination is, for example, an inviting field for study. Statistics of disease incidence is another. Unquestionably, it is of great value to measure by scientific analysis the worth of accomplishment, especially anything accepted as traditional practice.

For suggested topics, merely to indicate the range of possibilities, the following are offered:

- (1) Incidence of the common cold in relation to classroom temperature.
- (2) Effect of malnutrition on scholarship.
- (3) Study of diseased tonsils as a cause of absence.
- (4) Measurement of natural light in classrooms by means of the "foot-candle meter".
- (5) The school lunch as an aid in the reduction of malnutrition.
- (6) Personality traits most frequently observed in school children as causes of behavior difficulties.
- (7) Causes of undue fatigue inherent in the school program.

DISCUSSION

Chairman Schauffler: May I ask one question? Do the schools, in general, follow the state law that food handlers must be examined?

Dr. Ireland: I am afraid not. The law is a very new one and, I think, is scarcely functioning as yet.

Dr. H. B. Hull (Ridgewood): We do! All the cafeteria workers are inspected, and, particularly, we have examination made at the County Hospital for possible typhoid carriers.

Dr. Ireland: I am glad to have that information. Have you established any health standards for your lunch and cafeteria workers?

Dr. Joseph Schapiro: We haven't. We have luncheons in 1 or 2 high schools, but we are leaving them alone for the time being, for various reasons.

Dr. Ireland: Very little is being done yet in that way, but I think we all agree that something should be done.

Dr. Julia C. Mutchler: Do you advise taking measurements of the chest, in expiration and inspiration?

Dr. Ireland: No!

Dr. Mutchler: I have 1 school nurse who is quite determined to do that, but I feel it is a waste of time.

Dr. Ireland: Possibly it is a "hang-over" from

some former school program under which she worked.

Dr. Mutchler: Another point. If the child be stripped to the waist, would it be possible for the ordinary medical inspectors to detect incipient tuberculosis? I am referring to the legislation that Dr. Newcomb is so very anxious to have put through? Will such a law help? I have felt that it will come.

Dr. Ireland: It probably will. And a little later will come the tuberculin test and the x-ray examination.

Dr. Mutchler: Well, I do feel that when we send a report to the parents saying—"Normal"—that we are rather deceiving the parent.

Dr. Ireland: More than that, you are giving the public a wrong impression of the medical profession.

Chairman Schauffler: Right along that line, is it your opinion that the ordinary school medical inspector is capable of making a diagnosis of incipient tuberculosis, considering the conditions under which the examinations are made? Would it not be fairer to require that if they find any abnormal signs, then they should immediately inform the parents that this child's chest condition is not satisfactory. Do not try to make a definite diagnosis, but advise a thorough examination.

Dr. Ireland: I believe you are absolutely right, Dr. Schauffler.

Dr. A. L. Stone (Camden): The development of medical inspection of school children has been along the lines of least resistance. Money has been more easily obtained by the Board of Education than by the Board of Health. Programs have been established, with varying results, yet the fact remains that many essential phases of child health are neglected. If only a certain amount of money can be appropriated for "child health", it appears to me it should be distributed to cover a health program embracing the earlier years of childhood.

Money so appropriated would be for the employment of nurses, preferably under the Division of Child Hygiene in larger cities, and as Welfare Nurses in smaller communities. The children would then be under supervision from birth (or before, through pre-natal care), through the pre-school age, and there is no reason why the same nurses could not see the children through school age. They certainly could if enough nurses were employed and their districts assigned accordingly.

The desired results of child welfare must be accomplished in part by the education of parents. Nothing teaches better than a *demonstration* and giving the reason *why* a thing should be done. Hence, *home calls* are absolutely required. Who can do this work more efficiently than a child hygiene nurse with a birth certificate as the entering talk?

Preventive medicine is the keynote of public health. Immunization against several diseases now available should be given before school age. To wait until school age is an admission that we have failed to that extent.

Medical inspection of school children has been instituted a sufficient length of time to allow us to definitely state the nature and what percentage of defects will be found in any school. The weak-

est point is that the *percentage of corrections has not increased* as fast as the ability to detect them.

I hope that a day will come when this great mass of defects can be cared for by mass measures and the price be in proportion to what the parents earn, and the surgeon, dentists and physicians proportionately well paid. I believe that a well organized Health Department would be better prepared to get this accomplished. The Department of Education has a wonderful opportunity to follow strictly health educational lines; it can well afford to do that and be willing to coöperate with the Health Department in the more personal health problems, preventive and corrective.

Dr. Joseph Schapiro (Union City): There is such a thing as being too idealistic. I do not mean that Dr. Ireland is, but he does aim high. This elaborate program covers a wealth of school health measures almost dazzling to the imagination.

Teaching health values, as applied to a school health service, should be emphasized in the Training Schools for Teachers. We must rely especially on future crops of teachers turned out in the next 5-10 years. At the same time, we should not lose any time in educating teachers now employed.

In the matter of special classes for physically handicapped children, I would like to state that *cardiacs* should not be segregated as specials. I know that in some of the large cities there are classes for cardiacs. That is wrong, for the simple reason that such grouping causes more self-consciousness on the part of such children than if they were placed in regular classes. These children are usually hypersensitive, and if labeled with a physical condition such as "heart class", it is apt to disturb their mental and emotional equilibrium.

Mental hygiene, until very recently, has not been given the consideration in our schools that it should get. We are beginning to recognize that if children are to get the most out of a school program, not only the physical side must be looked after, but the mental and emotional as well. Teachers must be taught that a child is not merely a physical unit, but that he has a heart, a mind, a home, relations and an environment. Otherwise, you can readily see that a lot of children become "problem cases". The bright, the dull, the mentally retarded, must be recognized and grouped accordingly in order to give them the benefit of such a program as here proposed.

As to full-time school physicians, that would be the ideal realization for a school system, provided their compensation is adequate and tenure of office secure. Recently, a superintendent of schools from a town in the northern part of New Jersey came to see me and to look over our medical department. In the discussion of a health program that he was contemplating for his school system, he asked me what I thought of young doctors taking these "jobs" of medical inspectors in the schools as a "jumping-off" place for entrance into the active practice of medicine. I replied that medical inspectors should be especially trained for that sort of work. Until recently, medical schools have not given this phase of health work due consideration. A man who undertakes this sort of work should not take it up with the idea of simply holding down a "job". He should be thoroughly trained for child health work; be interested and familiar not alone with public health problems as related to the schools, but also with the educational and pedagogic features involved; and should make it his life work. There is a tre-

mendous field for such a man. Such work should be undertaken, not by young men just leaving hospital internship but by older men with experience in pediatrics plus training in public health.

The giving of tuberculin tests and doing x-ray examinations in the schools is not practical. Such work would consume a very large part of his time at the expense of other important work. We, in Hudson County, have officially gone on record, through action by the County Society, that such work does not belong in a school system but rather in the hospitals.

The best that the school physician can do is to refer suspicious cases to the family doctor. He should be the one to make as thorough an examination as possible.

Dr. William Lane Wilbur (Hightstown): I want to congratulate Dr. Ireland on his splendid work in perfecting this idealistic program. It is certainly idealistic and if it could be carried out it would be a wonderful thing. I fear, however, that it is almost impossible. Then, if it was applied, you would entirely exclude rural physicians from service of the schools. All the country districts have to have a part-time physician. They cannot hire, they haven't the money to hire, a full-time physician. This part-time physician is partly busy with other matters, and to carry out all of these things would take his entire time and he ought to have a salary of \$25,000 a year. It is all very lovely and splendid and Dr. Ireland is to be congratulated, but it is entirely impossible for the ordinary rural school.

Dr. Mabel G. Leshner (Camden): Personally, I feel very grateful for this presentation of Dr. Ireland's this afternoon. If I understood him correctly in presenting this program he did not feel that anyone in any one community necessarily could carry out the entire program. But there are parts of the program that I think every community, rural as well as municipal, could well afford to try.

I know that in our own community, in Camden, if we had a program like this it would help us immensely in our publicity program to get the community and the Board of Education to an intelligent understanding of what a health program really means to our schools.

Just take one instance that I have had recently. I have been medical inspector for the Junior and Senior High Schools and 4 elementary schools for the past 5 years. I felt the limitation mentioned, in being unable to disrobe the children. About 5 years ago we had the privilege, if we were suspicious that a child had tuberculosis, and we found it was 10% or more underweight, of sending that child to the tuberculosis clinic. We have a fine clinic with competent specialists at its head. It was a great relief to me when I felt suspicious about a child to have that privilege. I do not know how long that had been in progress but after I had been in the system 2 years word came that some of the doctors in our community thought that the medical inspectors were sending to the tuberculosis clinic children who ought to be sent to the private physicians. I cannot answer for the other physicians, but I always inquire whether or not they have a family physician and recommend them, first of all, to the family physician. But we have literally hundreds of children who do not have the care of a family physician and especially in these times of depression.

Where this complaint came from, I do not know, and I do not know how many of the doctors wrote to the Board of Education, but we are forbidden now to send such children to the tuberculosis clinic.

I do not know how you feel here, but I do not believe that the average practitioner is competent to make the diagnosis of incipient tuberculosis. And, I do feel that when we have the proper facilities, supported by the public of city or state, and we have a fine tuberculosis clinic where they have every diagnostic factor and specialists, we ought to have those means made available for our school children.

On the other hand, as we were forbidden by the Board of Education to send them there, if we had such a program as this it would go a long way in educating our Board of Education to the importance of our responsibility in the medical department of the schools, as to what should be done for the children, and what we can reasonably expect.

I, personally, would like to see this program adopted, realizing that no one community could carry it into effect *in toto*, but certainly, according to our communities, large measures of it would be made available.

Chairman Schauffler: Just remember that this program is a program for many years to come and that it is promulgated just at this time, and will be printed just now, because the Department of Education has, this year, money to do it. For next year, all printing money has been withdrawn from the Department of Education, and the Lord alone knows how many years that will last. Dr. Ireland can print this now. He can put it in his closet, if he likes, but it is here, and it will be here, ready for use in the future.

Dr. Allen G. Ireland: That is very true, and we feel the economic depression that hit the Legislature.

You will remember that I said this program was slanted in 3 different directions; I meant the Board of Education, School Administrator, School Physician—and, I might have named a fourth. Now, here is an interesting project. Suppose that Drs. Schapiro, Hull and Leshner got together and compared notes. Dr. Leshner would say "We are doing this"; Dr. Schapiro would say "We are not, but we are doing this"; Dr. Hull might say "We cannot do that but we are doing this"; and maybe Dr. Wilbur would come in and say that he isn't doing anything the others are doing. Isn't it conceivable that each of the 4 has some parts of this program in operation although no 2 of them are using any single particular feature. Can I prepare a program for Ridgewood, or for Camden, or for Union City, or Hightstown? Obviously, I cannot. What would happen if I prepared a minimum program that was not too ideal? Montclair, for instance, might say—"What does the state put out a program like that for? We are doing that, and more, too. That is no good." Don't you see the fallacy of attacking it on an ideal basis? In the literature of medicine today, and the literature of public and school health, everything I have presented here is recommended, endorsed, and is in operation somewhere in the state of New Jersey. Can I ignore the things that are being done, when they are right? No! We have to make a compilation of standards and say—"Here, this, just for your information, is being done in New Jersey. What do you think of it?"

"We can't use it."

"All right, but here is something that you can use, and here are some suggestions that will help to put it into effect."

There are 550 school districts in the state. If we made a minimum program suitable to the lowest organization, it wouldn't help anyone above that. The only proper standard to set up is the *maximum* that we may *work toward it*, all striving to attain the highest goal.

Our job is not to suit Montclair or East Orange or Trenton or any place; our job is to say—"Here is the child, here is the talent of the school physician, here is the purpose of education. Let's bring them together in an ideal program."

As a matter of fact, in answer to Dr. Wilbur, I think if we sat down and went over these activities, one by one, you would be astonished at the simplicity of their operation. Studying it that way, as I have, and being in touch with a great many communities throughout a state and in other states, *it was not too ideal*.

Dr. Schapiro is absolutely right in what he said about "cardiac cases". The emphasis in this bulletin is upon recognition of the cardiac child rather than the organization of special classes.

Full-time doctors—there were things to be said against that and something to be said for it. He immediately gave the best defense possible for the full-time physician by saying that he should have the special training, graduate work, knowledge of education and school organization. That is true. But, the part-time physician who is going to build up a practice won't do that.

Tuberculosis—I am sorry if you got from what I said that I meant the school should do all of that; no. The present work throughout the state—and there is a lot of it—is carried on by the Department of Institutions and Agencies. That matters little to us. The follow-up work through the Child Hygiene, Nurses and State Department of Health, and the home contacts is very ably carried on and we stand ready to support it and further it. Essex County and Union County have been tuberculin tested and so have other parts of the state. There is quite a lot of it being done already and the children are referred to the home, to the family physician, and then to the tuberculosis clinics of the state institutions.

That, of course, is an interesting point of view, as expressed by Dr. Stone. Certain parts of the country will inevitably try what he suggested. I think after we are in our graves they will come back to a realization that education is not academic learning but that it is a preparation for life, parenthood, citizenship, home building and whatever type of society we will have in the future. An education will mean everything that will make a better man and woman and it cannot be doled out to one department or to another. It cannot be separated.

While it is very nice to say that properly organized public health departments, should take over all of this health work, it may be tried and go on for a generation, but I think it is inevitable that it will come back to the educational body, whatever that may be in the future. We see a trend in the taking over of playgrounds, swimming pools, and summer camps and everything that pertains to the development of this cycle of the physical unit that we call the body. Moreover, every single move or word spoken by the physician, the dentist or the nurse, or any other specialist, is an educative situation. Everything done in the health program leaves attitude impressions, and

ideals, and helps to strengthen or break down habits. It is all educational.

The entire health program and every single health activity is not merely a negative phase of looking for disease and correcting conditions, but a part of this preparation of the mind, body, spirit and soul for going out into life.

Dr. I. W. Knight (Pitman): Isn't it quite a common practice, Doctor, for pupils to go to the gymnasiums or dressing rooms and strip and change their clothing to *gym suits*?

Dr. Ireland: In high school—yes.

Dr. Knight: Where do the physical educators get the privilege of having children undress when the medical inspector hasn't that same privilege?

Chairman Schauffler: From the Legislature.

Dr. Knight: Do they have special permission to have them disrobe?

Dr. Ireland: No, they do not. It is a matter of tradition. They do the same thing if they go to the Y. M. C. A. or to the recreation centers, or the beaches to swim, and it is a sort of tradition. That is, however, a good point and I confess that I never thought of it before.

Chairman Schauffler: This Section is a part of the State Medical Society and Dr. Ireland's work has been revised, or if not revised he has been assisted in it by the committee appointed last year at his request from the State Medical Society. He would like now to have this Section endorse it, if you see fit, to the Medical Society, as the result of the work ordered by the Medical Society.

Dr. Schapiro: I so move.

Dr. Hull: I second the motion.

Chairman Schauffler: It has been moved and seconded that the bulletin of Dr. Ireland's be approved and adopted and so recommended by the State Medical Society. (The motion was carried.)

RESPONSIBILITY OF THE COUNTY MEDICAL SOCIETY TO THE SCHOOL AND SCHOOL PHYSICIAN

SPENCER T. SNEDECOR, M.D.,
Hackensack, N. J.

This subject is worthy of consideration by every county medical society. In our concept of a modern *county medical group* there must be recognition for the school health program and its relation to the physicians of the community. Within each county society there are many school physicians; among the 200 mem-

bers of the Bergen County Society 60 are school physicians, and the school health program is their mutual objective. The need for a special organization of school physicians becomes apparent.

Emphasis upon presentation of this subject is justified 3-fold: (1) A tremendous open field for constructive medicine, for preventive medicine and hygiene, which will insure healthier and happier lives for the next generation. (2) The school is the institution in which children learn what a doctor is, what he does, and when to go to him. What the children of today are learning in school will to a large extent determine the place in our social scheme for the medical men of tomorrow. Here is formed the child's respect for our profession. (3) Another important reason for bringing the school physician to the fore is the opportunity which is ever present to take an active part in the educational program so that many of the pitfalls of socialistic medicine which threaten us may be avoided.

With due appreciation for the recent work of Dr. Allen G. Ireland, let me say that we now have for the first time in New Jersey a comprehensive and vital school health program. Herein recognition is given to the proper emphasis on health in the pedagogic scheme of student life. Here, good health is set up as a major objective in advance of the 3 R's; character building, citizenship and other focal points of teaching. And yet, even today, in the majority of schools, neither the educators nor the school doctor, who properly is one of them, give more than a passing thought to the broadness and all-pervading consciousness of healthful school life. In this school health program the manifold activities of the modern school physician and his widespread contacts with school life are well developed. For full details of this amazing concept of a school doctor as an educator of vital importance, reference should be made to Dr. Ireland's complete program.

With most school physicians school work is, unfortunately, a side-issue as a part-time job. Lack of appreciation, inadequate facilities, and poor pay are responsible for this attitude. The uncertainty of re-appointment

each year at the whim of the Board of Education and the custom of under-bidding for the position by some doctors, with connivance of Board, do not encourage constructive work.

But, it is also true that in recent years there has been an awakening among some of the school physicians, notably the younger men and those in the larger centers, as to the proper scope of their work, and in a number of cities fine work is being done. One must add, too, that there is a group, fortunately small, which almost entirely lacks interest and sympathy with the work. Some men we know consider their jobs as sinecures, or hand-outs, of a more or less political nature, in return for which they give as little as possible.

School nurses should be mentioned briefly. In the main they are a fine group of women, and at present they are carrying most of the burden of the health program. They are loyal workers whose errors have arisen from lack of preparation and lack of supervision. In many schools, where the doctor drops in for 10 minutes once a month, after he has rushed through his perfunctory examinations the whole load falls upon the nurse and we should not complain too much if she occasionally sends children to clinics and forgets the family physician.

Our experience in the Bergen County Medical Society has been illuminating and of value. Under the leadership of Dr. Edmund N. Huff, of Englewood, a *school physician's group* has been organized within the county society. Last year we invited Dr. Ireland to speak at a County Society meeting, and this year several additional members were added and a tentative preliminary program was proposed; taking up for consideration several questions in which there is need for county-wide understanding and coöperation, as follows:

- (1) Examinations; with special reference to obtaining permission to undress the child for complete examination; standard tests for sight and hearing; examination of feet; and other details.

- (2) School nurses. Need for more direct control by school physicians. Standards of conduct for first-aid, treatments, and references.

(3) Immunization and vaccination. Uniform policies.

(4) Standard code for dealing with contagious diseases.

(5) Pre-school examinations.

(6) Salaries for school doctors.

Each of these topics opens a discussion in which the interests of the profession are of paramount importance.

This outline is given here not because it covers all of the school problems affecting physicians, but because it represents "a summation of the more important problems encountered by school physicians" today, as studied by an active group in our society. The Society recently held an open meeting to discuss this report with school physicians and members of the Boards of Education.

One must not forget the community physicians who are not school doctors. No public health program can be a success without their coöperation. The motives of the school physicians, the actions of the school nurses, and the recommendations which are sent home to parents, must all be understood by their colleagues. Else, when the parent brings the child to them, they will not understand why the school physician believes the tonsils and adenoids should be removed, or why the child's lassitude and inattention in school should be due to malnutrition or how they can assist in solving a behavior problem.

No matter from what point of view we approach the school health program we find indications for the County Medical Society to assume an active responsibility; for, it is the organization that can directly reach the school physician; can supply a forum for the discussion of educational policies; can arouse the interest of the community physicians; can lay down suggestions for their conduct; and, can also reach the Boards of Education for eradication of any weakness in the system.

In general, we have a new challenge to leadership by physicians. Are we to guide and control the future health education of the nation and assume our duties as leaders? *If so, we must conclude that the County Medical Society has a definite responsibility to take an active part in developing the school health program.*

DISCUSSION

Chairman Ireland: Thank you, Dr. Snedecor. You see now that what I promised you has come true. The thing to do now is to give endorsement to the plan and advise that it be considered by other counties and, as rapidly as possible, put it into operation. There are 21 counties, 21 county medical societies, and each could have a *school health program committee*. Eventually, we may have a representative from each county medical society to form a larger *state school health committee* to work with the State Department of Education. We have a tie-up there, of the County Medical Societies, through state and local committees, directly with the schools. We have a tie-up of the State Medical Society with the State Department of Public Instruction and a tie-up of the County Medical Society with the local school health program. I can see a great many advantages from that sort of organization, where the medical profession will be in a position to give us the best advice from an organized group, not just 1 physician here, and 1 there, but a *group* to which the public school officials may turn for the best authentic advice in setting up a further development of the program. Right now, we have controversies in this state concerning matters over which we have no control, and for which we are not to blame in any way, but, I have had no way of reaching the *key people* concerned, let us say with regard to school clinics and immunization and things of that sort.

I am looking forward very optimistically and hopefully to an extension of the Bergen County Committee plan into other counties.

THE COMMON COLD IN THE SCHOOL

JULIA C. MUTCHLER, M.D.,

Dover, N. J.

I have come here today without a new fact to offer but just a repetition of facts and a program which, if carried out, will be helpful in the prevention of colds in schools. I do not want you to think I have come here as an authority on *colds*, because I treat colds less than any other disease. I specialize in gynecology and the removal of tonsils; am also a Medical Inspector for 5 district schools; and, I also weave in a little *politics* (being now a member of the Legislature). I feel that the most important problem confronting mankind is how to conserve public health, the preservation of human life and the prevention of disease.

Dr. Copeland has said: "Our present knowledge of the treatment and prevention of colds is very vague. General measures aimed at increasing the resistance of the body, rather

than a direct attack on the disease itself, have been the vogue for many years. The reason for this is because no specific method of prevention or cure exists."

Recent researches at Johns Hopkins and Columbia Universities have demonstrated that the cause of colds is probably a filterable virus.

This result is, however, only a step toward the ultimate solution of this important problem. Sometimes a common cold is but the beginning of a fatal illness. It causes infection of the entire nasal, laryngeal and pharyngeal tract; of nasal sinuses, middle ear and mastoid; infection of brain and brain membranes; and entrance of staphylococci and streptococci into the blood stream; to produce pneumonia or general septicemia.

Even if we are lucky enough to have a *slight cold*, apparently, we have no way of measuring the damage which may be done to the human system.

I have given considerable thought to the question of when the tonsils first become infected. In my opinion it is when the child first grasps a toy in his hand, puts it in his mouth, then throws it on the floor where there are millions of germs, and from which it is picked up, and given to the child who puts it in his mouth again. This process is going on all day with the baby and this is the time when the tonsils first become infected and the first colds begin.

I have a project to offer and it is that we should make the world surgically clean. In other words, we should not make this world only safe for democracy but also safe from disease. If we would enforce the health laws we now have, and spend more energy, time and money on what we already know of the prevention of disease, we could make the world a safe place in which to live.

This is a gigantic program, but it can be done by education, sanitation, sterilization and disinfection. First—start a campaign against all animals and insects that carry disease, such as: rats, mice, dogs, cats, mosquitoes, flies and roaches. Dr. John C. Hull, Chief Bacteriologist of the Illinois Department of Health, claims that over 50 diseases are transmitted from animal to man, and although the cat and dog may be driven out of the home

there is still the great menace from the rat and the mouse. Not only is the rat a prolific breeder and carrier of germs but it does a great deal of destruction to property. Do you realize that you are helping to pay a \$200,000,000 animal feed bill for the rat alone? This is the estimate placed upon the destruction each year by rats in the United States. If the nation as a whole expended $\frac{1}{2}$ the money now spent in feeding rats it would be possible within a few years to rid the country of our worst pest. The staggering sum of \$927,000,000 is paid annually for taxes for diseased victims.

This campaign for the elimination of disease should be under Government control. The head of it should be a member of the President's Cabinet, and should be a physician. The health problem is so big and important that it deserves this consideration.

The great Disraeli said: "Public health is the foundation on which reposes the happiness of the people and the power of the country. The care of public health is the first duty of the statesman." According to Pasteur: "It is within the power of man to rid himself of every parasitic disease."

The question now before us is—how are we to keep our children free from colds, if they become infected at home? We must keep that home free from possible infection. Health directors must have the coöperation of the parents. I always instruct the mother to send the child to school warm. I also think that the hot soup at school helps conserve the vitality of the child. The warmth or even-temperature of the child is as important as anything else to prevent colds. I also stress not to allow the child to become over-fatigued.

Next in importance is to get coöperation of the teacher. You know that teachers think along the line of education, while we Health Directors think along the line of health. Sometimes, I find that the teachers are surprised when I point out certain physical defects in the child. I heartily believe in the pre-school clinics and that all physical defects should be attended to before the child enters school. Then the child will be better fitted to meet the new contacts he finds in school.

A problem that confronts me at the present

time is the infection of the first teeth. I find many dentists will not fill nor extract the first teeth and I believe that the child suffers from such infection. Some dentists claim that the maxillary processes will grow together if the teeth are extracted. I think the teeth should be removed, as the process at this age is soft and the second teeth will come through if given a chance. Also, by removing the infected first teeth, you will keep the second teeth from becoming infected. I am happy because I have a dentist at home who agrees with me and when I remove the tonsils I have a dentist come and clean the child's mouth. This conserves the child's vitality and prevents colds.

Every teacher should have a regular morning inspection and if there is any suspicion of a cold, the child should be sent home. During the cold period season, the child should be instructed by the nurse or school physician to disinfect his nose and throat before he comes to school, and if we have full coöperation of the teacher she should remind the child to disinfect his nose and throat when he again reaches home.

DISCUSSION

Chairman Ireland: Some of the things that Dr. Mutchler brought out are so significant in our health work in the schools, not only in preventing colds but in preventing other diseases and in teaching children how to live as good individuals and good neighbors, that I am going to mention them again. You have the over-heated classroom, where the child perspires, coupled with the fact that teachers permit the children to wear sweaters, coats and rubbers all during the day. When they go out to play, or go home in the chilled air, there is a sudden shock to the body.

The use of common implements, such as pencils, paint brushes and pen holders, things that can be put into the mouth and then loaned and passed on from child to child. We preach covering the nose and mouth when coughing or sneezing, yet preaching never affects children. We must make it a rule that they do those things and that they form the habit, and know why, and develop the right attitude toward such advice.

Dr. Mutchler touched very emphatically upon exclusion and parental coöperation. Exclusion is, perhaps, the most important factor, as demonstrated by studies and surveys that have been made. In certain schools, in the average community where we feel assured that the child will receive care at home, exclusion catches the condition early, insuring early care and treatment, shortening duration of the illness and bringing the child back to school soon. It removes immediately from the schoolroom a dangerous contact with other children. These demonstrations have shown that where immediate exclusion is practiced

there is a higher attendance, fewer colds and fewer complications coming out of the colds.

Parental coöperation, of course, is essential and there we have the ever-present problem of reaching the parents and the great necessity for the educational work carried on by this Society, and the necessity for school physicians and administrators and departments, like my own, constantly contacting parent groups. I think the answer there is to give the parents themselves the opportunity of studying. It isn't a question of just giving a talk but of study groups, having conferences to take up the problems for 2 or 3 months a year and finding out for themselves what they should do to prevent the dangers of the cold.

Use of paper napkins was an excellent suggestion. It is interesting to note, as we visit schools, how that practice is on the increase. No doubt it is due to extensive advertising on the part of the manufacturers; nevertheless, it is a very desirable sort of thing. We do have inadequate washing facilities in all our public schools, except perhaps a few of the newer buildings. Somehow or other, in the past it did not seem necessary to put in wash basins and soap and towels. The child was supposed to come to school clean and keep clean. But, children aren't made that way. We are only gradually getting to the point where we can convince boards of education and architects, of the necessity of putting in adequate washing facilities, properly located in the school building. After that comes the big problem of training teachers in the use of those things as educational devices.

I would like to stress this because it is a problem facing New Jersey, that is, the exceedingly great over-emphasis placed upon attending records. Every child, from the time he enters school, is faced with that stress. He must be there to win a button or a star or a banner for his room. This emphasis brings the children to school when they have colds, sore throats, or sore eyes or what not, when they should be at home. It is a tremendous problem because we shall never establish an adequate school health program of any kind until there is a new emphasis upon the attendance of the child at school and the removal of these competitive devices. The parents are over-zealous, and the parents want the child to win these little prizes. In order to be educated, they think he must be there every day. There is that insistent drive behind him. He comes in with his sniffles and coughs and sneezes and sore throats in order that his row or his room may have a perfect record for the day. That is a vicious thing and it is causing no end of trouble.

The Newark State Normal School, where Dr. Kahrs is school physician, as well as the Jersey City Normal School, conducted an anti-cold campaign. I am not sure that it is the exact title for the subject, but it is worth bringing to the attention of this group. Will you say a word on that, Dr. Kahrs?

Dr. Grace M. Kahrs (Newark): I am particularly pleased to hear your discussion of this subject because it does bring the topic before us as a problem. All those who are interested in schools realize that the greatest proportion of loss of time of teachers and students is due to what we call the cold.

I have been greatly interested in directing a group of cold-susceptible students from an educational standpoint particularly. Girls who were susceptible to colds, that is, having 2, 3, 4 or more colds during a year, have registered voluntarily

for investigation. With some it has been, of course, a question of physical defects—nose or throat difficulties or perhaps uncleared chest conditions. These we see frequently. The student returns to school too soon after bronchitis or pneumonia, and has a cough which lingers unless she is advised and is excluded until the condition is entirely cleared and a general improvement of her health accomplished.

We have found that probably the 2 outstanding factors, those that account for the largest number in the cold prevention group, have been the need of attention to proper ventilation and diet. Numerous students, as you have mentioned, Dr. Ireland, found for themselves, by the use of a thermometer in each room which they occupied, whether it was their living room at home, their sleeping room, the room where they studied or their classroom, that they were in an average temperature of about 78-80°. These super-heated rooms seem to make them particularly susceptible.

Instruction and practice have enabled them to gradually increase their cold tolerance and tolerance of a more suitable temperature. They have also reported with great interest the fact that their fathers and mothers now, too, are more comfortable in a room ranging from 68-72° than they were formerly at 78-80°. That has been an outstanding influence in our experience.

The next largest number of students were those who used an excessive amount of sugar in their diet. Practically all of them found that they were taking a great deal more candy or ice cream or soda than they should, and have been able to control their colds by attention to this fact. Our studies, however, have not been conducted long enough to enable us to state that we have lessened the number in each case.

It has proved possible to lessen the severity and the number of days endurance of these conditions by insisting that students: attend to the proper cure of acute colds and having them appreciate the importance of clearing up physical defects, regulating their diet, improving the ventilation of their rooms and bettering their general health. By observing those directions it was possible to secure a complete clearing up of colds before they returned to school. We did not want them to be satisfied merely to feel somewhat better, but insisted that they come back entirely relieved of all symptoms.

The teacher, and especially the student teacher, proves a most favorable subject for this study. We have the influence that the school is able to exert and we also have a group that, by their studies, are commencing to more and more appreciate this need of individual physical improvement on their part, both from the standpoint of their own welfare and of that which they will be able to carry over into their classroom problems.

I feel that these girls, by studying the fact of individual susceptibility to colds, will better appreciate that there are many points to be considered in the classroom problem of colds among smaller children. They will be able to utilize their knowledge and attempt to apply it in a great deal more individualized form. We try to keep in mind both of these points: their personal improvement and their carry-over when they eventually become teachers.

Chairman Ireland: Dr. Kahrs' very excellent little discussion gives me an opportunity to brag a bit about what we think we are doing in our State Normal Schools. I believe we have carried

the school health program into our normal schools and made it a real vital thing in the lives of the students.

We have, in each Normal School, a very highly trained staff, including physicians and well trained health educators and nurses. They are fully conscious of this health problem facing every classroom teacher in the state.

I thought of 2 or 3 other things as a result of Dr. Kahrs' presentation. The matter of sugar is very interesting because this afternoon in my interpretation of a program for the school physician one of the things I shall stress is the matter of co-ordination. On the one hand the physician finds the cold and he knows the situation; on the other hand, we have home economics teachers and school lunch room managers attempting to build up an education through an actual situation, the school lunch. We are trying to teach children how to eat and what to eat and why. That is just one of those little opportunities for the physician, the home economics teacher and the teacher to co-ordinate their talents and knowledge and activities all for the purpose of making the child a better individual as he leaves school to go out into life.

I did not mention cloakrooms, but when a child comes in with his outer garments wet from the rain and snow and hangs his clothes in a poorly ventilated cloakroom, those clothes are still damp when he puts them on to go home. Very seldom do we see adequately ventilated cloakrooms. In most of the old-fashioned types the hooks are close together so that the clothing is against the wall and the bundles of clothing come in contact with each other. There is no circulation there and so the clothes remain wet.

There is one other person present, Mrs. Taneyhill, from whom we would like to hear. One of Mrs. Taneyhill's talks was on common colds. I know from talking with the school administrator, and receiving comments from Mrs. Taneyhill as to her reception in the school, that it made a tremendous hit. Would you say, in a word, Mrs. Taneyhill, the response on the part of the schools to your talk on the common cold?

Mrs. E. C. Taneyhill (Field Secretary): This has been the most saleable topic I have offered in my 5 years of educational work for the Medical Society of New Jersey. It seemed to be a subject about which everybody was seeking information.

At the outset, my investigations were rather discouraging. I visited Johns Hopkins Hospital and Medical School last summer, and talked with some of the men who have worked there under the Abel Fund for research on "The Common Cold". They told me that they had found neither preventive nor cure for this ailment. I said that that might be scientifically accurate from a laboratory standpoint but that clinically some degree of control seemed to have been demonstrated. The U. S. Public Health Service gave me helpful information from this angle, as did also Columbia and Cornell.

In an effort to reduce the spread of colds, I have tried to bring out the fact that it was, to say the least, inconsiderate to appear in public thus afflicted. I have tried to impress upon pupils and teachers that, once having contracted a cold, they were simply out of luck and had no more right to inflict their infection on the public, on their classmates, or on the family than they would have in case of chicken-pox, scarlet fever or mumps. A light cold in a sturdy person might, if communi-

cated to a frail individual, lead to some chronic or fatal malady—mastoiditis, sinus trouble, tuberculosis, influenza or pneumonia.

This rivalry for the attendance banner is a great handicap in any attempt at regulating the spread of colds in the schools. I am so glad that Dr. Ireland feels that it should be discouraged. For the sake of the class record, the children feel obliged to be present at school if they can struggle from their beds. Thus do they not only endanger their own health but they are often a menace to others.

One point which might be elaborated, in regard to the treatment of colds, has to do with the sunbath. As many of you know, that was tried at Johns Hopkins with no success at all. In fact, the group treated with ultra-violet rays had more colds than did the control group, so Johns Hopkins did not think so much of that measure. At Cornell, however, they had the reverse experience. In a group of cold susceptibles who had one sunbath a week for a period of 6 months, the incidence of colds was reduced 34-52%. In addition, however, these individuals were given other directions that might have been at least partly responsible for the successful outcome of the experiment.

These students were told, if they felt a cold coming on, to take bicarbonate of soda: adult dose 1 level teaspoonful in 1 glass of water twice a day. A radical change in diet was also ordered during the premonitory symptoms and acute stage of the cold: no heavy food of any sort (such as meat, pastry or hot breads), and no candy (a measure already advocated by Dr. Kahrs). Permissible diet consisted of vegetables, salads, a quart of milk and the juice of 3 or 4 oranges daily. Directions were to go to bed if the cold threatened to be serious, and to stay there for 2 or 3 days. This is advised partly to secure relaxation, rest and even bodily temperature, and partly to preclude contacts, thus reducing the possible spread of the infection.

As to clothing, I have found the teachers and principals invariably pleased when I mentioned the hot-house effect of the ubiquitous wool sweater. There seems to be a constant and futile struggle on the part of school administrators to do away with those sweaters. The girls sometimes wear wool dresses in the classroom, with the temperature at 70° or above. I point out the lack of resistance which results from thus over-protecting the body, and urge as light-weight clothing as possible for indoor wear.

The big idea that I have tried to put across is that a person with a cold should do to others as he would wish to be done by, and when he is a danger and a nuisance by reason of coughing and sneezing and sniffing, he should keep his germs where they belong, namely at home and to himself. (Applause.)

Chairman Ireland: By various devices we are trying to meet this problem. I know that Mrs. Taneyhill—from the comments we have received from school principals and administrators—has made a dent, a very decided dent, in attacking this common cold situation in the schools.

Dr. Donald B. Hull (Ridgewood): I think there should be an education of the teacher. I find teachers with a bad cold showing children how to write and breathing right into their faces. The child hasn't a chance, there.

It is part of my job as school physician to lecture to the teachers and tell them how to take

care of themselves. I send them home, when they come to me, for a few days even though they have to put in a substitute teacher. We were somewhat short of teachers last winter but I think it paid just the same in the end as regards the welfare of the students.

Chairman Ireland: That is a good point. One of the astonishing findings would be the number of teachers in school passing colds on to children. We face a problem there. Our teachers come from the middle class of society, and many support widowed mothers and fathers. Many are poor. They cannot afford to lose money and they come to school with these colds. There are a good many districts that haven't sick leave with pay and the teacher cannot afford to lose that money. Yet, our health program tries to go on in the face of these difficulties.

I think you are to be commended very much, Doctor, for taking that stand in Ridgewood. I am sure a great many other school physicians do likewise.

Dr. Marcus W. Newcomb (Brown's Mills): I wonder at what point you medical inspectors begin to think that maybe it isn't a cold, but that there may be something in the chest. How long do you allow these colds to go on before you suspect that the child may have tuberculosis, or something else in the chest? Do you just go on for weeks and say that the child has a common cold?

It seems to me that the only way to get to the bottom of this is to start your examination when your child develops what you think is a common cold. Every case of tuberculosis gives you a history of, "Well, I caught a cold so many weeks or months ago and it never cleared up".

Where does the one stop and the other one start? Where does the common cold cease and where does your pulmonary disease or some other condition begin?

I think these have all been excellent papers. As to the ventilation of school houses, we have a fine lot of ventilating systems—on blue-prints—but they are simply nice to look at and never work. Most of the schools are badly ventilated. I have been on the Board of Education for 18 years. We have built 2 school houses. I have studied the ventilating systems, but very few of them work. Some of them now having the blowers work better than they used to. Dr. Ireland knows about these, but as I said before, the average school is badly ventilated.

We are always going to have this cold problem in the school. I should like to know how we can ever get all of the colds out, because I should like to stop taking colds myself.

There are many other questions in the schools. The only thing we can do is to keep plugging away as we are doing, until we get to the real solution.

Chairman Ireland: I am delighted that Dr. Newcomb touched on the point of ventilation. I think it would be a revelation to many people to know the number of expensive ventilation systems in the schools that are never used from September to June. That is one way of wasting money. You find ½ the buildings up to 80° and the other half down to 55° with the ventilation system running. That is a tremendous factor.

So long as we have in our Legislature and on our Boards of Education physicians and people of the caliber of Dr. Mutchler and Dr. Newcomb

we are very fortunate and we feel sure that our school health program will move forward.

Dr. Knight, do you have anything to add or does anyone else wish to speak?

Dr. I. W. Knight (Pitman): I have come to the conclusion that the best defense against nose and throat infections is a normal mucous membrane and its healthy secretions. If sprays and gargles are used which are too irritating an abnormal condition of the membrane is set up which lowers its powers of resistance. If local applications seem desirable, let them be confined to normal saline solution, or something similar. Such solutions will cleanse and wash away the discharges, free the membrane from their irritation, and allow it to return to normal. It is then better prepared to overcome any infection that may reach it.

Chairman Ireland: I would say that a great deal has been said here this morning which touches the rural school, particularly that of the training of the teacher. The fact of ventilation was mentioned, and over-heated rooms, taking the clothing off and the attendance problem, the parental coöperation, paper napkins, washing facilities and school lunch. All of these enter into the rural school situation, especially the training of a teacher and her procedure or function in helping the child in the case of a cold.

In coming to Dr. Kahrs' question, I would throw out this thought—the school must take the stand of not treating the children. We must take the stand of not advising home treatment but always of referring the child, through the parent, to the family physician. I think we must adhere to that policy and in the end it will bring us the best results. Possibly, in the training of teachers, we can bring out a weighing of the values of the home remedies versus the proper professional care, but we should not treat in the schools.

MODERN THYROID CONSIDERATIONS

LESLIE E. MYATT, M.D.,

Bridge-ton, N. J.

I have here classified thyroid diseases under 3 main headings, placing the several rarer types in a fourth class; and they are colloid, adenoma, primary hyperthyroidism and the rarer diseases.

In differential diagnosis we find the colloid goiters smooth, more or less regular in outline, and maybe very large. The adenomas are nodular and the primary type is usually not large; may be normal in size. The colloid type usually occurs as a puberty hypertrophy and may undergo exacerbation during pregnancy, as the ancients knew and took advantage of by fastening a snug band about their daughters' necks as a check-up. As you know,

there are districts, such as the Great Lakes in our country and in Switzerland abroad, where even dogs have this type of disease.

The best treatment is prophylaxis by the use of small doses of syrup of ferrous iodide, Lugol's solution or potassium iodide for 2 weeks in every 6 months. I do not believe that iodized salt is dangerous as now employed, for the amount is only about 1 part of potassium or sodium iodide in 5000 parts of salt. The treatment of this type of growth is conservative, if the patient has no symptoms. The indications for operation are cosmetic, traction on the recurrent laryngeal nerves giving the so-called "brassy voice", or pressure on the substernal structures, trachea or esophagus. More glandular tissue may be left at operation here than in the primary type and for anesthesia it is wise to use a few minims of adrenalin in each ounce of novocaine in these non-toxic conditions.

The adenomas are divided into the simple non-toxic type and the hyperactive type. Usually, it requires from 15 to 25 years for the first to develop into the latter, and the onset is insidious. About 1% of these adenomas become cancerous in time. The treatment of simple adenoma is enucleation or excision.

The rare diseases of the thyroid gland comprise tuberculosis, which is secondary and is practically never diagnosed pre-operatively; lues, which if diagnosed may be treated by anti-luetic therapy; ligneous thyroiditis, which is an extremely interesting condition. This is not cancerous and is simply a replacement of normal gland by connective tissue. There is a woody or stony hardness on palpation. These conditions have a tendency to subside, but at times it is necessary to split the isthmus because of tracheal pressure. The next type is infectious, with or without abscess formation. They are practically always secondary to some systemic process, and should be treated by prompt incision and drainage if pus forms. The last of the rare conditions is cancer, and may be of the parenchymatous type which involves the entire gland, or that developing from adenoma; the former is practically always fatal but the latter is sometimes cured by very early removal of the adenoma.

Our fourth, and to me the most fascinating group of thyroid diseases, I prefer to term primary hyperthyroidism. It is variously known as exophthalmic goiter, Graves', Parry's, or Basedow's disease. The toxic adenoma is treated practically the same as this type, and the chief difference is that they sometimes do not respond so well to Lugol's solution before operation. The etiology of primary hyperthyroidism is emotional strain, intercurrent disease, injury, and a large group about which we are uncertain. This type is occasionally seen in children and here conservatism is advisable. Rest, high carbohydrate feeding, plus radiation is indicated. Operation is usually badly borne. The best results in this type of disease are obtained when the patient is over 30 years old. The life history of the primary type is usually one of remission and exacerbation over several months at a time. It is preferable to operate during a quiescent period.

The most usual condition confused with hyperthyroidism is that of neuro-circulatory asthenia. Here the basal metabolism is the best indication and the patient's response to Lugol's solution is also highly suggestive. The basal metabolic rate is normal in neuro-circulatory asthenia and the pulse does not respond to Lugol's solution. Under the more normal and trustworthy signs and symptoms, we have the fixed stare; the lid lag; exophthalmos; thrill and bruit in the gland; nervousness; tremor; weakness of the quadriceps femoris; diarrhea; increased appetite, at times very marked, but at the same time weight loss, at times very extreme; insomnia, increased perspiration; restlessness; increase in size of the gland; increased heat tolerance and high basal metabolic rate. It should be emphasized that frequently this type of disease is not associated with glandular enlargement. The 4 cardinal signs and symptoms are exophthalmos, tremor, tachycardia and a high basal metabolic rate.

The treatment, surgery, practically always consists of a bilateral subtotal lobectomy leaving but a few grams of glandular tissue on each side of the trachea. This tissue covers and protects the recurrent laryngeal nerves

and parathyroids. The pre-operative treatment consists of rest in or out of bed as advisable; Lugol's solution—10 to 30 minims t.i.d.; barbiturates; bromides; forced carbohydrates; forced fluids; and, very important, an entire understanding with the patient so that he may have perfect confidence in his surgeon. One point which is not often stressed is, I believe, important. Digitalis in doses up to a total of 20 to 30 c.c., but only in cases of myocardial damage. It should be emphasized that these patients should never have any form of iodine except pre-operatively. After such therapy it is difficult, and at times impossible, to get the startling drop in pulse rate, basal metabolic rate and decrease in nervousness seen when they come to us free of iodine.

The anesthetic is morphia, gr. $\frac{1}{4}$ —repeated if necessary; novocaine $\frac{1}{2}\%$ reinforced always at the patient's request by nitrous-oxygen combination. I prefer to have the patient awake, especially when working near the recurrent laryngeal nerves, in order to test his voice at frequent intervals. I suture the platysma and skin separately with fine interrupted silk sutures and practically always leave a small drain in the wound.

The complications, immediate and remote, are: First, damage to the recurrent laryngeal nerves. If only one nerve is injured the other vocal cord will compensate for it in from 3 to 6 months by extending beyond the mid line, but if both are impaired there is an adduction of the cords so that an immediate tracheotomy may be necessary. It seems to me rather remarkable that a mediastinitis is so rare in thyroid surgery even following tracheotomy. If the parathyroids are injured the patient develops tetany. This is easily and most magically controlled by calcium chloride 10% (5 to 10 c.c. by vein) or Collip's parathormone. It is an interesting observation that after administering calcium chloride practically every patient almost immediately complains of a rather distressing wave of heat passing over the body, which subsides promptly. There may be a primary or secondary hemorrhage; if primary, transfusions can be employed and are extremely beneficial. Prompt opening of

the wound, if the neck is swollen under the dressings, with evacuation of the clot and ligation of the bleeding point may be indicated. Hemorrhage of this type may cause tracheal occlusion with extreme dyspnea and even death.

Occasionally, especially in large tumors, the trachea may collapse. A prompt tracheotomy is indicated. Very rarely, air embolism occurs when the lower veins may gape and air be sucked in, and such cases practically always terminate fatally at once.

I do not know of any more striking phenomenon than the so-called "thyroid storm" which may occur following any procedure, or even with no operation, upon these primary cases. They literally burn up. The temperature may rise to 108°, the pulse rate to 240. I shall never forget an experience of the kind, concerning a young woman following a tonsillectomy. I was asked to perform a tonsillectomy and advised the physician against it, because of the complicating hyperthyroidism. The operation was, nevertheless, done by another surgeon. In 24 hours this patient literally burned up.

The treatment of post-operative shock of this type is a generous ice-pack, large doses of morphia, glucose, and large quantities of fluids. Quite frequently there is an annoying tracheitis which may persist for several days. This is not very important, however, and usually clears up with simple remedies. A later complication may be glandular deficiency or hypothyroidism. This might be considered a favorable sign because we know we have cured the primary disease. These patients do very well on appropriate doses of thyroid gland or thyroxin and in from 3 to 12 months are usually able to get along without medication. The immediate postoperative care is the administration of Lugol's solution 20 to 40 minims t.i.d. until the patient seems out of danger. Small doses may be necessary for several weeks; morphia in large doses if indicated; glucose per rectum, by mouth or by vein; large amounts of fluid and a quiet cheerful atmosphere.

TREATMENT OF SIMPLE FRACTURES

JOHN S. IRVIN, M.D., F.A.C.S.,
Atlantic City, N. J.

In spite of the very considerable advances that have been made in recognition of the pathology of fractures, of the process of healing following fracture, and in the methods of reduction and fixation, the treatment of fractures is far from being standardized. The very multiplicity of excellent methods of treating fractures has in itself prevented such standardization. The best one can hope for is to recognize that method of treatment for any particular fracture which will, in his hands, give the best result.

Sherman, of Pittsburgh, may use open reduction almost exclusively and get most excellent results. It does not follow, however, that open reduction is the method to be used by all of us as a routine procedure. If one has Sherman's vast experience, his excellent equipment, and his long-trained assistants, one's results with open reduction will be comparable. If, on the other hand, one does only an occasional open reduction in the average general operating room, with its rapidly changing personnel, the results will inevitably not be so good. For this reason, I say again that one must choose the method which in his hands will give the best results.

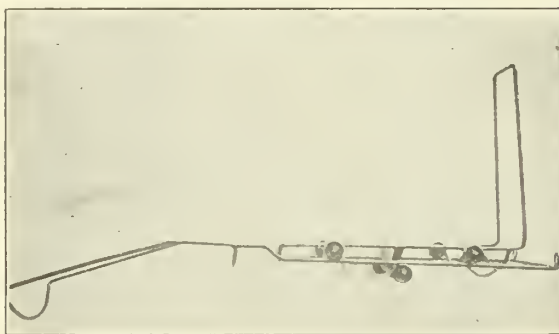
Regardless of the method used, I wish to stress the importance of early treatment. When I was a student I was taught to put fractures in fixation and wait until the swelling went down before attempting reduction. When one considers what takes place at the site of a fracture, this seems far from logical. The extravasation of blood, the edema and round cell infiltration of the soft parts, the muscle spasm, and the shortening of muscles render late reduction more difficult.

I feel that fractures should be treated as emergencies. When I am on service, I insist that my intern shall call me whenever a patient is admitted with a fracture that is obviously not in good position. The advantages in treating fractures early are several. Seen

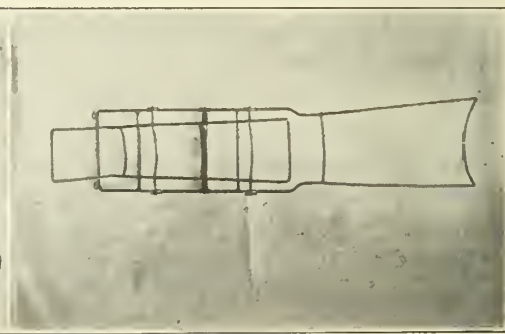
early, one can usually make an accurate diagnosis of the type of fracture and position of the fragments; often without x-ray aid. An immediate radiograph is, of course, of great assistance. Seen early and properly diagnosed, one can immediately plan and start treatment. Here let me say that in treating the fracture one must not lose sight of the fact that the patient is of more importance than the broken bone. Shock, or other injuries more important than the fracture, may preclude immediate reduction. In such case we must treat our fracture in a way that will best aid recovery from the shock or major injury. Immediate fixation and traction will help very materially in the treatment of shock.

Recently an order has been issued by Dr. Greefe, in New York, that every ambulance

a patient treated by one of my colleagues. It was a supracondylar fracture of the humerus in a child 13 years old. Seen at night, within $\frac{1}{2}$ hour of the injury, it was easy to discover the posterior position of the lower fragment and the amount of rotation. Under local anesthesia, reduction was extremely simple, and after reduction it was easy, by palpation, to be sure that the fragments were in good position with the posterior displacement and the rotation corrected. Within an hour of his injury the child was in bed with his fracture reduced, and suffered but little pain afterward. Certainly, if a splint had been applied, and an order for an x-ray picture in the morning had been written, he would have suffered a great deal more and the almost perfect reduction would not have been so easily obtained.



Modified Cabot splint, lateral view.



Modified Cabot splint, seen from above.

engaged in the public ambulance service of New York City must be equipped with Thomas leg and arm splints, and that every fracture or suspected fracture of the extremities above the foot or the lower end of the fore-arm must be put in temporary fixed traction before the patient is placed on the stretcher for transportation to the hospital. Dr. Hubley Owen is now engaged in working out a similar method in Philadelphia. There is no doubt that these measures will result in less shock and trauma to the soft parts.

If shock or serious injury does not preclude it, treatment should be started immediately, because swelling, induration of the soft parts, and muscle spasm are not present to any marked degree, and manipulative reduction will be vastly easier then than later. I saw a striking instance of this about 10 days ago in

By immediate reduction one minimizes damage to the soft parts and aids materially in the restoration of function following healing of the fracture.

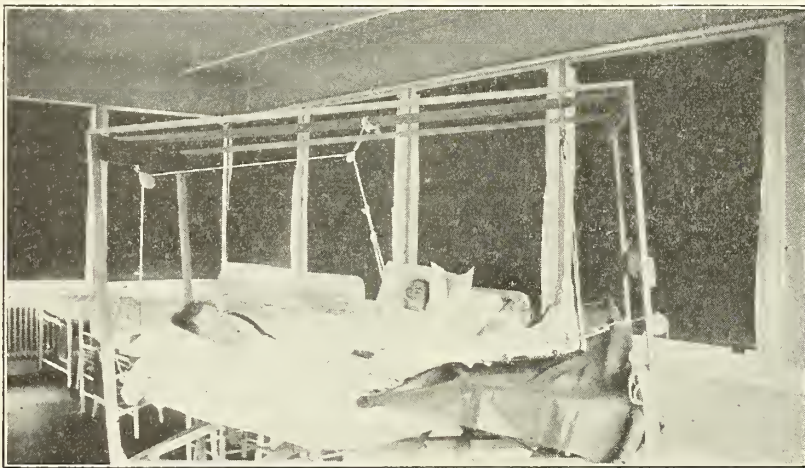
The choice of anesthesia in the reduction of fractures is important. Most are, probably, reduced under gas-oxygen, which is usually satisfactory. Recently, local and spinal anesthetics have become popular. There are several factors to be considered in choosing the anesthetic but the most important of these is the condition of the patient. When one is afraid to use general anesthesia, a local type is often excellent. In using it, however, one must remember that its value is in direct proportion to the amount of separation of the fragments and the resulting hematoma. In green-stick and impacted fractures it is of minimal value and gives poor anesthesia.

One disadvantage of local anesthesia is that the patient still retains voluntary control of his muscles and, if apprehensive, he is bound to resist your efforts even though he is suffering no pain. A combination of avertin and a local anesthetic gives most excellent results in these cases. Avertin combined with gas-oxygen is a very satisfactory anesthetic; relaxation is very good and I have, indeed, sometimes found it almost as good as spinal anesthesia in this respect.

Spinal anesthesia gives the most complete muscular relaxation and makes otherwise difficult reductions easy. I do not care to use

and occasionally takes some skin with it. Skeletal traction is much more effective and is easier to maintain. I am partial to it, particularly in fractures of the thigh and leg.

Of the 3 methods of skeletal traction commonly used, ice-tongs, the Steinmann pin and Kirchner's pin, I prefer the one last mentioned. It is the easiest to apply and is, I believe, least likely to cause trouble. Recently, I used it on a subtrochanteric fracture of the femur and after the pin had been in place for 18 days, part of this time with 35 lb. pull, the patient died—not of her fracture or the method used in treating it—but of a sudden ful-



Modified Cabot splint used for traction-suspension treatment of fracture of both bones of leg with skeletal traction through the os calcis

it as a routine procedure, for I am afraid of it, perhaps unnecessarily.

If one of the various types of continuous traction is to be used, it should be applied immediately. Reduction by continuous traction is much easier during the first 2 days than it is later. I recently heard Dr. Robert Kennedy, of New York, say that at the Beekman Street Hospital, if full reduction is not obtained with it within 48 hours, the situation is reviewed and, frequently, other methods are substituted.

In using continuous traction, one must choose between skin and skeletal traction. Skin traction is less effective and often difficult to maintain, as the adhesive plaster slips

and occasionally takes some skin with it. Skeletal traction is much more effective and is easier to maintain. I am partial to it, particularly in fractures of the thigh and leg. At autopsy, the bone through which the pin had been placed was examined. There had been no elongation of the hole in the cortex nor was there any gross evidence of irritation of the bone surrounding the pin-hole. Unfortunately, no sections were made.

In describing the methods of continuous traction, I must mention Russell's traction, but only to say that I have had no experience with it. Those who use it speak highly of it and I have seen some of their excellent results.

Certain fractures, notably those of the patella, olecranon, head of the radius with marked separation of the fragments and frac-

tures of the proximal half of the scaphoid of the wrist with marked separation, require open reduction or operation. In cases other than these, which do not obviously demand open operation, I think it is wise for most of us to try other methods first. Fortunately, open reduction does not have to be done immediately. In fact, it is better to wait until the soft parts have recovered from the trauma to which they have been subjected, since then the danger of infection is less. This gives us an opportunity to try other methods first and, if they fail, we may still resort to open operation.

The best method of immobilization in any particular fracture is that which involves the minimum amount of fixation compatible with maintenance of reduction; a minimum fixation which allows the maximum of use of the adjacent parts and the maximum of early physiotherapy.

There is no doubt that elevation of the extremity, mild continuous heat, slight massage, and as much activity of the muscles as is feasible by means of active and passive motion, plus electric stimulation, aid materially in getting rid of the inflammatory changes about the fracture. If nothing is done for these inflammatory changes in the soft parts, very early organization of scar tissue occurs about the muscles, tendons, blood-vessels, nerves and lymphatics. A few days of early physiotherapy along the lines indicated will do more good than months of later baking and massage. When any part is at rest, with or without a fracture, for a long period of time, stasis results; because muscular activity is the important agency in promoting venous and lymphatic return. This stasis will result in more or less permanent tissue damage, which is evidenced by pain and swelling when the part, especially if it be the lower extremity, is again used.

Circular plaster is largely used in the maintenance of reduction and will continue to be so used, I suppose. I try to get away from it as much as possible by the use of moulded plaster splints, because it is not possible to be sure what is happening within circular plaster. Frequently, reduction is not maintained. Unless the fracture is transverse and in good po-

sition, frequent radiographs are necessary to be sure of the maintenance of reduction. In some lantern slides I can show you 2 instances where reduction was not maintained within circular plaster. Perhaps the use of unpadded circular plaster might obviate some of these accidents; but, so far, I have been timid about applying it to fresh fractures, though I frequently use unpadded moulded plaster splints which can be easily loosened or tightened. Besides this advantage of moulded plaster splints, they allow frequent examination of the extremity and can be removed daily, when necessary, for early physiotherapy.

Manufactured splints for immobilization are myriad in number and some are useful. Unfortunately, they are made to fit everybody and consequently fit nobody. I try to get away from them again by the use of moulded plaster splints which can be more accurately applied to the part affected.

Traction-suspension, except for Blake's suspension of the humerus, and possibly a few others, requires splints of various sorts. The most useful splint, I find, for fractures of the lower extremity is the Thomas, with or without the Pierson leg piece. The Boehler splint has recently become popular, and in his hands, and no doubt in the hands of many others, it is an excellent splint. My chief objection to it is that in treating fractures of the lower extremity, the upper fragment is not controlled when the patient lifts himself upon the bedpan or otherwise moves about in bed. With a properly suspended Thomas, the whole extremity and the splint itself moves as one when the patient lifts himself; and there is, therefore, better control of the fragments.

I would like to show you a new splint for the treatment of oblique fracture of the tibia and fibula. Most of such fractures should have either open reduction with direct fixation of the fragments or traction-suspension. Many of them cannot be held in plaster because the over-riding tends to recur in response to the pull of the muscles.

The splint to be described is for the traction-suspension treatment of this type of fracture. I called it *new*, but it was developed during the World War at the French military

hospital where I spent several years. I had not used it since the War until recently, because it was not always effective with the skin traction which we were then using. Some months ago I thought that it could be combined with Kirchner's pin traction, and I believe that works very well. It is really an adaptation of the Cabot splint for purposes of traction. The part of the splint on which the upper fragment rests has a prolongation on each side to serve as a track on which the lower part of the splint runs by means of 4 small wheels; there being 2 detachable wheels fastened to the distal part of the splint and which run beneath the track; thus preventing the 2 sections of the splint from coming apart. When applied as you will see in the slides, it immobilizes the 2 fragments against any lateral motion and still allows the patient to turn himself from side to side and to raise himself upon the pan. Traction is secured by the Kirchner pin through the os calcis. The only advantage that the Thomas splint has over this one for this type of fracture is that massage and electric treatment can be given better when the Thomas is used. This disadvantage, I believe, is outweighed by the better immobilization of the fracture and the better mobilization of the patient. This particular splint was made for me by H. A. Dunker & Son, of Millville. (Dr. Irvin then exhibited a series of lantern slides demonstrating the important features under discussion).

DISCUSSION

Dr. J. Irving Fort (Newark): I have been very much interested in hearing this paper, from the viewpoint of a fracture specialist. For 5 years I have done nothing else but fracture work and I certainly want to compliment Dr. Irvin on the way that he presented to us something which the profession needs to realize more fully and that is—that a fracture is an emergency and demands early treatment.

After all, the result depends upon "the man behind the gun". It doesn't make any difference what method he uses, as Dr. Irvin said, but $\frac{1}{2}$ hr. means as much to a fracture as it does to a ruptured appendix. It has been our principle to try to have emergency treatment applied at the site of accident. Unfortunately, we cannot do it always, so that our next principle is to have it done when the patient is admitted to the hospital, that being the first point at which we have control of the patient, and the Thomas splint, with traction, and with a hitch around the shoe if necessary, in a leg case, or about the wrist in an upper extrem-

ity, is immediately applied and kept until we can prepare the patient for final reduction.

Suspension and traction by the skeletal method is the ideal treatment, in those cases where we have to overcome a very tense muscle pull.

A man who does a great deal of fracture work must be a carpenter, a plumber, and a mechanic, and must treat each patient individually, holding in mind our fundamental principles of anatomy, mechanics, and ability of the patient to withstand the type of treatment we institute.

I emphasize *the patient's condition*, having in mind a patient who came to me not long ago, a man with a fractured neck of the femur and with the same side of his pelvis injured. His condition was such that we had to overcome a paralysis of the intestines which was undoubtedly from shock, so that nothing could be put upon the abdomen. We, therefore, put him in the Russell traction apparatus, that being a type in which the traction is applied to the knee only, a swing under the knee and a quadrilateral pull, in which the weight is multiplied 4 times, giving a pull of 4 times the actual weight; so that the surgeons and the medical men who helped us out could care for the patient; his fracture being under control at all times.

I want to say further that I am very happy to have heard this excellent paper because it is what I should have liked to say if I had Dr. Irvin's gift of presentation.

Dr. H. I. Silvers (Atlantic City): It seems to me that there are distinctly 4 cardinal principles in approaching an individual who has a fracture and I think those can be expressed in—temporary fixation, early reduction, complete or permanent fixation, and early movement of the joint or limb. Naturally, the temporary fixation does not immediately or usually come under the direct supervision of the man who is looking after the fracture. It is usually an emergency, but much hinges upon it. A great deal of damage is done in the transporting of patients whose fractured bone fragments are sharp, and a great deal of damage is done to the soft structures. Which means 2 things: either considerable swelling, because of the traumatism and consequent exudation or actual hemorrhage; or, the added danger of the breaking down of tissue, if it is necessary to enter that hematoma cavity, or traumatized tissues.

As to the early reduction, there could hardly be any discussion. Those who have tried to reduce broken legs or arms or bones in any place or position, quickly realize the necessity and the opportunity for an early reduction. It is easier for the patient and decidedly easier for the physician.

Fixation naturally follows, fixations of many, many types and of many forms. Fixation is either of the skeletal tractive type, the type with the ordinary adhesive traction, fixation by splints, fixation by plaster; those are probably the common types.

The work that Dr. Irvin has reported, or the work from which he gathered his material, was done in our hospital, the Atlantic City Hospital, where we see a great many accidents cases, and naturally, a great many automobile accident victims. At times it seems almost like war surgery. I think that the reason for the good results obtained, is the fact that we try to treat such patients promptly.

TREATMENT OF COMPOUND FRACTURES BY THE CLOSED CAST METHOD

IRVIN E. DEIBERT, M.D.,

Camden, N. J.

From an economic standpoint, compound injuries are the most important with which we have to deal, for infection and osteomyelitis result in months of hospitalization and it is not an uncommon occurrence to find that a patient has spent 1-1½ yr. in the hospital only to be discharged with a bad deformity or complete loss of a limb. During his stay in the hospital, the patient has had numerous x-ray studies and probably several operative procedures, not to speak of countless dressings and much nursing care; and all this time he has been a non-producer. If the injury has been a compensable one, industry and the insurance company must pay the bill; if not, the patient's resources have been severely taxed before he is able to return to work, and if he has lost a limb, the probabilities are he will never return to his former occupation, and the injured man and his family will surely suffer—and in many instances the conditions are tragic.

Prevention of these accidents is not under control of the physician, therefore our attention must be directed to those methods of treatment which tend to reduce hospitalization and deformities. It is probably needless to state that the automobile is responsible for the larger proportion of these injuries, and in our own hospital, located adjacent to one of the most heavily traveled highways in the world, we have had ample material to study. So, this study, based upon the treatment of 50 compound fractures, began about 2 years ago in the surgical service of Dr. Paul McCray and the author in Cooper Hospital, at Camden. While this is not a selected group, it must be stated we have not treated all compound injuries by the method about to be described, and the reasons are two-fold; first, we wished to be reasonably certain of the results to be obtained; and, secondly, to be sure

we were not going to make an already bad injury worse.

Before speaking of the method of treatment, a few remarks as to compound injuries are in order, and we regard these as highly important and somewhat different from the teachings of text-books. All compound fractures must be regarded as potentially infected, irrespective of the manner of occurrence. The fact that the wound occurs from within outward or vice-versa is purely for academic discussion. While it is true wounds occurring from without inward are apt to carry in more dirt and foreign material, those occurring from within outward must do extensive damage to the soft structures before breaking the skin surface and in returning, or attempting to return, to their former positions, will carry in, the ever-present infection in the skin surface of the body.

It must be remembered that the size of the skin wound has no relation to the size of the wound under the skin, and a small laceration covers, frequently, an extensive wound in the soft structures, and it is this type which, from destruction of tissue and subsequent clot formation, results in an ideal spot for the culture of microorganisms.

The treatment of compound fractures may be divided into 2 parts: (1) the best possible reduction of the fracture; and (2) care of the wound, which is always secondary to reduction of the fracture. By securing a good reduction and the subsequent adequate splinting, the affected parts are given an opportunity to get the maximum amount of rest, thus placing the tissues in the best possible position to fight infection; whereas, good wound treatment but poor reduction of the fractured bone means infection and failure.

The method of treatment which we have used is essentially that of "Dr. Orr" and is as follows: First, consider every compound fracture as a decided emergency, and institute treatment just as soon as the patient's general condition will permit, for the delay of a few hours may mean the start of a serious infection. A prophylactic dose of tetanus antitoxin is administered and, due to the decided increase of gas bacillus infections in our vicinity, we also include a dose of the poly-

valent gas serum. While we do make a smear, from the wound, and examine it immediately for detection of gas organisms, we do not consider this an important part of the technic, as it is usually too early for this type of infection to show.

The patient, removed to the operating room, is anesthetized; a sterile gauze pad placed over the wound; and the surrounding skin surface is scrubbed with tincture of green soap, followed with bichloride solution, then benzine, and finally again with bichloride. After the skin surface is satisfactorily cleansed, the wound itself is scrubbed with the same solutions. The next step we consider the most important part of the technic—that is, to enlarge the skin wound so that it becomes the same size, or even a trifle larger than in the soft parts. The entire area receives then a careful and gentle débridement; loose detached fragments of bone, but no good tissue, must be removed; the fragments are then placed in apposition, the wound drenched with tincture of iodine, followed with pure alcohol, and is then packed, wide open, with sterile vaselized gauze. Under no circumstances are sutures placed in the wound, and upon this depends success of the treatment. A sterile dressing is placed on the gauze, a closed plaster cast is applied, the patient returned to bed, and the part elevated. After 10-14 days of normal temperature and pulse rate, the patient, if it is possible, is allowed to be up and about in a wheel chair; the temperature and pulse rate being the best guides to the patient's condition, the cast is not changed for a period varying from 3-7 weeks, or it might be said until sufficient callus has formed to hold the fragments while the cast is being changed. This procedure is followed until good union and wound healing have taken place.

Ice tongs, pins and wire in conjunction with the Albee table have been used to secure and maintain reduction, and recently we have used the Kirchner wire apparatus in conjunction with the Boehler extension frame to a decided advantage; the frame, being relatively small and portable, may be used upon any operating table, bed or carriage, and permits one to operate in a sterile field under con-

tinuous extension and to apply a cast under extension incorporating the wire in the plaster.

As a great number of compound fractures involve the tibia and fibula, this method makes it possible to obtain an almost perfect reduction in the majority of instances. When a cast has been applied under extension it is well to maintain some traction for about 24 hr. in order to relieve muscle spasm and pain.

If at the time of removing the first cast there is a fair union, we have allowed our patients to return home, to be followed either in office or out-patient department after the second cast has been applied.

As stated previously, this paper is based upon the treatment of 50 compound fractures, the majority of which were of the tibia; 3 of the femur; 7 bones of the fore-arm; 1 of the humerus; 4 in the bones of the hand; and 3 in bones of the foot. Our chief difficulty with and objection to this method of treatment in compound fractures of the femur is the difficulty in securing and maintaining good primary reduction.

To definitely compare the end-results of any series of compound fractures treated by a given method, as against another method, is obviously exceedingly difficult and unfair on account of the numerous factors involved, such as age, sex, bone site and portion of bone involved, and also the fact that compound injuries are usually associated with more or less severe bodily injuries.

The functional and anatomic results in this series have been the same as in any series of simple fractures. The day following the operative procedure, our patients have been very comfortable; this has been without exception and has been one of the striking features. There has been less swelling following application of the casts than that which usually occurs in simple fractures; attributed to the fact that there is adequate drainage at the wound site. In no instance have we resorted to removal of a cast because of spreading infection. The average length of time the original cast was permitted to remain varied from 3 to 7 weeks, depending largely upon the fracture site. The greatest length of time a patient remained in the hospital was 10 weeks; and the shortest was 2 weeks. While this

shows a decided decrease in the number of hospital days as against those fractures treated by other methods, we believe that even this time can be considerably shortened; and we also believe that this method has often been the means of saving a part that would have been otherwise amputated.

There has been no extensive osteomyelitis, and the subsequent treatment, after removal of the first cast, has been the simple redressing of the wound and the re-application of the cast. At the first dressing the vaselized gauze was found often to have been extruded from the wound, the space filled with red, healthy granulations and a fair amount of union present; and, in many instances, the wound was entirely healed.

No effort was made to establish a time limit for the first cast, but, while a decided odor is not a dangerous sign, we make it a point to change casts for this reason in order that the patient may not become objectionable to himself or his associates.

A detailed bacteriologic study has been previously reported, having been done in an attempt to establish the value of the bacteriophage of d'Herelle, as suggested by Albee, but as most of the smears showed no growth, this work has been confined to study of the osteomyelitis.

In any large surgical service there will be admitted a certain number of patients with compound fractures that occurred several days prior to admission, and which during this time have been practically untreated. In this type of patient we have waited until we were sure that the infection was localized and then followed the usual technic.

The contraindications to the closed cast method of treatment may be said to be those patients who have serious and extensive damage to the soft parts, or an injury to the main blood supply of the limb, plus our inability to secure and maintain good reduction. A decidedly erroneous objection often raised is that the wound is packed tight with gauze and then sealed up with plaster, thereby increasing liability to infection, especially of the gas bacillus type; whereas, in reality, nothing can be further from the truth—the fact being that the wound is packed loosely, and wide-

open to allow for adequate drainage, while the plaster acts as a protective dressing and functions in maintaining reduction and securing rest for the injured part. It must also be remembered that the gas group of organisms are anaërobic, and it is our belief that by packing the wound wide-open this procedure greatly lessens the possibility of gas infection.

CONCLUSIONS

Compound fractures can be treated satisfactorily by the closed-cast method, with a minimum degree of discomfort to the patient, in addition to the fact that the nursing care and number of dressings are decidedly lessened, and by comparison the number of hospital days are cut to a minimum.

The use of some type of extension frame or table in addition to pins or wire makes it possible to secure an almost perfect reduction in the average case; while incorporation of these appliances in the plaster maintains good position and insures adequate rest.

All compound injuries should be treated as emergencies; operated upon under the most aseptic conditions and the wounds thoroughly explored.

Gas bacillus infection does not develop in a wide-open wound.

The treatment of the wound is secondary to reduction of the fracture, and the most important step in the technic is to see that the skin wound is of the same size or larger than that in the soft tissues.

DISCUSSION

Dr. Calvin Smyth (Philadelphia): Dr. Deibert's paper has been very timely and I wish to endorse everything he has said regarding the treatment of compound fractures. In the older and better known methods of handling this type of injury, the attention of the surgeon has nearly always been concentrated on management of the wound at the expense of the fracture. While it is unquestionably true that infection is the commonest and most immediate complication in compound injuries, it is also true that neglect of the fracture encourages the development of infection.

I have used this method of treatment with great satisfaction for the past 3 yr., in 2 rather active hospital services, and have treated 48 compound fractures by this method in the past 14 months. In no case has it been necessary to remove a plaster case, and in no instance has gas infection developed.

What Dr. Deibert said regarding the post-operative condition of these patients is unquestionably true. It is in striking contrast to that of patients who are treated by any method which requires

frequent, time-consuming and painful dressings. Union in these cases proceeds in the same orderly manner as in closed fractures and the period of hospitalization is in most cases no longer than in the closed fracture.

The published results regarding this form of treatment have been very satisfactory but, in spite of that, surgeons almost everywhere have hesitated giving it a trial. Most of this fear seems to be based on the danger of anaërobic infection, but our experience and the experience of others has shown scant basis for this. It is our practice to give a prophylactic dose of combined tetanus and gas gangrene serum. Formerly we gave the 2 serums separately, using the polyvalent gas serum.

Regarding the technic of operation, the method I use is the same as described by Dr. Deibert with minor differences. We do not scrub with soap and water. We clean up with benzine followed by alcohol and ether, and painting with iodine. The débridement or mechanical disinfection must be extremely thorough. The wound margins must be excised and the wound opened up extensively.

There is one point, I think, that should be emphasized and that is that this method of treatment is not applicable to every case of compound fracture; being contraindicated, most certainly, where we find extensive muscle laceration and where damage to the main blood supply has been sustained.

THE PRIVATE PHYSICIAN IN THE COMMUNITY HEALTH PROGRAM

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The recent White House Conference report of the Committee on Medical Care for Children contains this statement:

"The practice of medicine has both curative and preventive aspects. These must be viewed not only from the standpoint of service to the individual but also to the Community".

Dual responsibility of the physician. That the physician has a dual responsibility—preventive and curative health service—and also in the form of—responsibility to the community as well as to his private patients—is not generally recognized even by members of the profession. A better *understanding* of this dual responsibility by all groups within the community would tend to eliminate much ineffective discussion as to the part which he should play in any Community Health Program.

The physician in private practice can discharge this double obligation most satisfactorily by rendering 2 types of services: (1) Individual preventive and curative service to his private patients; (2) Preventive service to groups in the community. As a participating member of the local medical society, representing organized medicine, the physician has a place in the different health programs carried on in his community. This *group service* is intended for indigents and those who cannot pay full fees, but is an integral part of the Community Health Program or of a coöperative program with other community organizations such as the schools, the health department and any welfare agency.

Growing emphasis on preventive practice.

The earlier endeavors to differentiate between public health and private medical practice, on the basis of prevention and of treatment, were never logical or satisfactory. All medical men have an obligation to provide both services, and the public health administrator needs to call on his colleagues in private practice in discharging his obligation.

The physician in attendance on the family, both in illness and in health, who knows the individual habits, peculiarities, capacities, and reactions to various situations of each member, can best advise regarding preventive measures; and advice of the family physician will receive consideration because of this long established relationship and confidence.

Underwood has put it well, as follows: "Opportunity is in the making for the private practitioner to take his own peculiar place in the public health movement. Technical preparation there must be, exactly as one would fit himself for any other special procedure, and a new approach, a new point of view, must be acquired. He is dealing with a well man who wants to keep well. . . . Until the man in practice makes preventive practice a real part of his everyday business, it will remain only a pleasant topic of conversation".

With the declining in demand for curative service, for such diseases as smallpox, typhoid, diphtheria, malaria and yellow fever, preventive measures are seen to be the new fertile, undeveloped field for the medical practitioner, though the diseases just mentioned

are still important from their preventive aspect.

Preventive practice consists of health education and a type of service which can be better organized and scheduled than can curative services. With the increase in demand for preventive service, the need for cure will decline still further and more rapidly.

Health education. The public is increasingly coming to accept and appreciate disease prevention services, but is not yet ready to pay for preservation of health on a par with health restoration. Further demonstration of the value of preventive measures by health departments and private organizations is necessary, and medical societies themselves must take a more active part in this work. Education in health preservation has been intensively carried on by private organizations and health departments for less than 2 decades and in the schools for an even shorter time. The giving of health advice has not always been whole-heartedly supported by the medical profession. Admittedly, some of the advice given by others has been conflicting and some has been fraught with error; which is an urgent reason why physicians should assume the lead in public health education.

The keynote of health education by lay groups is, and should be, "Consult your family physician". The response on the part of the public has in spite of all this been most encouraging. Much unreliable, commercialized, health advice has been given over the radio in recent years. This advice has, fortunately, in many cases been so ridiculous as to make its serious acceptance by the public unlikely, but "reaching" for cigarettes by women has greatly increased. The medical profession should seek some form of radio censorship, such as is now in effect in published advertisements, which would gradually drive out the misleading statements now so often heard.

Health education is a broad term and includes many types, but there are 3 main sources of reliable information regarding health preservation and improvement:

(1) *The educational process in the public schools.* Most schools, happily, now include the subject of health. Discovery of the ex-

istence of the pupil below, as well as above, the chin has stimulated teachers to endeavor to teach health conservation, in a well organized plan through effective pedagogic methods, but the teachers need assistance from the medical society, in proper selection of pertinent health facts for teaching, in order to make their efforts most productive.

(2) *Health Education by the private physician.* This will be given incidental to his endeavors to build an individualized health program for each patient suitable to that individual's needs and capacities. The health advice given by the physician will be preceded by and founded upon a careful study of the history of the case and a thorough physical examination.

(3) *Public health education.* Instruction and demonstration by the health department and by private health organizations will center largely upon the value of periodic health examinations and consultations with the family physician. For limited periods of time demonstrations of such services will need to be given as a part of the educational plan. Various types of service will be temporarily utilized but always with an educational aim. Generalized health information will supplement the central theme of "Consult your family physician".

All forms of education in health demand the constant coöperation of the organized medical profession. Health education is already quite well organized.

The greatest need now in health service is organized effort. The best example of well organized curative medical service is seen in the modern hospital, while public health departments in large cities offer the best examples of organized preventive service.

The hospital should aid the physicians to develop organized service in their preventive practice. The community health department has been for some time demonstrating methods of group service at low cost per capita. Health department demonstrations in immunization against diphtheria and vaccination against smallpox, and the protection of the army against typhoid and tetanus, have proved the economy and efficiency of organized group care in this type of preventive service.

The County Medical Society should organ-

ize its members for community service and thus reclaim the opportunities lost through failure to recognize and meet changing conditions and needs. The public is increasingly demanding preventive service at moderate cost, and this demand can be met by physicians: individually, in private practice; and by the medical society, in the community health program. Medical service to industry, schools and hospitals can be contracted for by the medical society and then given by those members who are interested and best fitted for this job. Every hospital should have a "health center" for advice as to prevention and service. This center should offer also post-graduate opportunity, instruction and experience for physicians and nurses. Preventive measures improve and change as well as do curative measures, and one needs to keep abreast in both. Dr. W. S. Leathers, out of a full experience of teaching, practice, and public health administration, has said: "The greatest strength of the medical profession does not consist in the individual, but in the organized effort of its membership".

Organized efforts by the medical profession will assure to its members the health leadership in the community; for, leadership inevitably goes to those best fitted—if they will accept the opportunity and discharge the obligation that goes with it.

State medicine. The bugaboo of—*State medicine*—has never disturbed me greatly, because *this appears to be merely a demand for better organized medical service; and the demand seems to be quite reasonable and just.* I cannot see why the government should wish to assume the burden of such a stupendous task unless we of the medical profession are willing and ready to accept it. *Why should we not accept it? Who has a greater interest in improving medical service?* Among our colleagues are those who specialize in organization of service and in health administration. These executives are better fitted to reorganize and plan medical services adapted to their own community needs than are any governmental agencies. Many of our State Health Commissioners are also widely experienced in private practice and have often

in the past decade outlined plans whereby community health needs could be more adequately met through better definition of these needs.

The community health program. A community health survey conducted by the community health council members would reveal the needs of any community. The council could then prepare a community health program and develop plans necessary to meet the most urgent needs first. Plans can later be made to expand the services to meet other needs as fast as available finances permit.

In community health programs there will be considerable variation in services established, because needs vary so greatly in different communities; in one area malaria; in another typhoid fever; in still another hookworm or other parasites; will constitute the urgent preventive requirements. In times of depression, malnutrition must be intensively combated and the deficiency diseases such as rickets, pellagra, and xerophthalmia must be prevented. Common community health problems are: protection against diphtheria and smallpox, and in later life against the "wear and tear" diseases; protection against infections through hygiene and prompt treatment of wounds and the early detection of focal points at periodic examinations. Health education is a prominent subject in community health programs and is discussed in some detail elsewhere in this paper.

The content of the health program in any community should emphasize those urgent problems with which that community is faced. The subject of methods, organization and functioning through the community agencies is more complex. Within each community are different agencies furnishing health services. In rural areas, these services may all be vested in the local physician. In other communities, the health officer and the school teacher are available. In the large cities, a considerable number of health agencies function, and the executives of these agencies become members of the community health council. The local health officer is usually the logical coordinating executive for the council and works through the executive of each agency.

The community program for child health is

that portion of the general health program which deals with the activities that apply specially to children; and, the agencies which contribute chiefly to the child health program are the following:

(1) The medical profession and institutions which offer health services.

(2) The educational system which contributes health education (as knowledge, aims, ideals and skills).

(3) Social agencies which aid the dependent family to secure medical service, food, clothing and warmth, and help allay fear and worry, so inimical to health.

(4) The moral agencies—among which are the various religious groups and their institutions contributing to emotional control through faith, and the promotion of healthful living through parental education.

(5) The recreational group so often allied with schools, parks, or independent agencies. The health contributions of this group are varied. Recreation increases physiologic activity, which aids bodily function, growth and development, and gives emotional satisfaction.

In the Community Child Health Program the work of these agencies should be so co-ordinated as to function economically and effectively in furthering the physical and mental well-being of the child. Each contributing agency retains its identity but functions under its own executive as a unit in the community health machinery.

The group of special interest today is embraced in the County Medical Society, and the subject of greatest importance is the part its members should play in the Community Child Health Program. Most medical societies are now organized chiefly for the professional improvement of their members. The weakness of these societies is the lack of organized service for every child. No community can be said to have adequate medical care until such provision has been made. The medical profession can best provide this service but it is the obligation of the community to pay for medical care for the indigent out of the taxes to which all (including physicians) contribute.

The County Medical Society is an important

health agency in the community. Organized medicine must be represented on the community health council by the local medical society. If the society has a business executive, he makes an excellent representative for he understands organization and planning and can devote the necessary time to this project.

The community health council determines the needs, develops the program, makes the assignment of services to each participating agency and, through the Council's executive, supervises the work and co-ordinates the services in order to increase efficiency and economy in health work in the community.

Contributions to such a program by the County Medical Society, as a member agency in the community health council, must be specifically designated, and the individual physicians must faithfully discharge the obligations assumed by the Medical Society in addition to their obligations to their own private patients. In this manner they co-operate fully in the discharge of their dual responsibility to the community. In many communities good starts have already been made in the development of community health programs with community agencies co-operating through health councils. These show considerable variety in organization, in designation, and in procedure, but the agreement in fundamental aims and policies is readily seen upon close analysis of their programs. The cities of Cincinnati, Milwaukee, Detroit, and Fargo, and the counties of Suffolk and Kings on Long Island, are good examples.

The individual preventive services which the physician offers to his patients include: (1) Periodic health inventories, including history and examination. (2) Frequent inspections and discussions as supervisory procedures. (3) Immunization and vaccination as early as 6 months of age. (4) Mental hygiene, through allaying of groundless fears or giving moral support in time of trouble or during treatment. Confessions received and counsel given by the private physician (especially the family physician) during adolescent years help to stabilize the emotions. As Leathers has said: "Potentially, no one is so capable of applying the principles of preventive medicine to the habits and circum-

stances of the individual as is the private practitioner of medicine." Private physicians must become aware of the potential help available in the community agencies in protecting and restoring their patients to health and happiness.

The efforts made by the physician in discharging his obligation to cooperate in the Community Health Program will do much to develop his social sense, no matter how well equipped he may be professionally. Medical practice is at the cross-roads, and changes are inevitable, but they should be *evolutionary* and *not revolutionary* in character, and must be marked by progress. In closing, let me quote some verse which I recently discovered.

"New times demand new measures and new men;
The world advances and in time outgrows
The laws that in our fathers' day were best;
And, doubtless, after us some purer scheme
Will be shaped out by wiser men than we—
Made wiser by the steady growth of truth,
The time is ripe, and rotten ripe, for change;
Then let it come; I have no dread of what
Is called for by the instinct of mankind.
Nor think I that God's world would fall apart
Because we tear a parchment more or less.
Truth is eternal, but her effluence,
With endless change, is fitted to the hour;
Her mirror is turned forward, to reflect
The promise of the future, not the past."

DISCUSSION

Chairman: There has been formed within the past few years an American Academy of Pediatrics, deeply interested in all that affects the pediatricians. We have asked Dr. Schroeder, Regional Chairman of the Academy, to open this discussion.

Dr. Louis C. Schroeder (New York): May I, first of all, thank the Society for this opportunity to present some views upon the relationship of the private physician to any public or community health program. There are those of us who recall that precious few moments in our training emphasized the importance of public health work. How is it, then, that a great State Society such as yours has deemed this subject of enough importance to ask Dr. Wilkes to write a paper upon it and has honored me by asking me to give the viewpoint of the American Academy of Pediatrics? There is one underlying reason for it. The American public has begun to realize the old saying—"an ounce of prevention is worth more than a pound of cure"—is something more than a homely old adage. As a result, it has been slowly but surely forcing physicians to change their views on medicine as a whole.

How do we know this? Consider some of the surface indications. People buy tooth brushes and dentifrices now not only from an esthetic standpoint but also for the prevention of what 4 out of 5 may acquire. They buy vegetables and fruits for their alphabetic vitamin content. They dress their children and themselves in order that the

ultraviolet rays may get in their beneficent work. These are indications of a point of view which is developing tremendous force.

One of the reasons the American Academy of Pediatrics was organized was to direct this force, so far as it concerns children, into the proper channels. The Academy believes that the idea of preventive health work in a community is basically sound. It also believes that the directors of this movement should be the physicians in the community. This belief was engendered by the fact that physicians far above any other class are in a position to know what are and what are not healthful practices. Pediatricians enjoy a strategic position in this field and for that reason the Academy of Pediatrics is especially interested in having its members actively interested in all phases of community health work.

It is not possible to discuss in detail the excellent suggestions contained in Dr. Wilkes' paper, but 2 things are suggested which the American Academy of Pediatrics asks its members to bear in mind.

The first is that their responsibility as physicians is a dual responsibility. They must know how to talk to mothers about such questions as why the child will not eat, and to tell why teething does not necessarily explain all rises in temperature. They must know as individual practitioners that their responsibility does not end with their ability to sit down and, even with a child squirming on the mother's knee, impress on her the idea of quiet and rest. They, as members of the Academy of Pediatrics, have a duty toward the community, as well as to the individual child.

The other thing the Academy emphasizes is importance of organized effort. Unfortunately, there has been more organized effort for health in a public way outside of medicine than in it. The Academy believes that organized effort on the part of physicians is necessary to handle the problem of health work. Too long have physicians been *receiving suggestions from lay organizations instead of giving them*. In place of being told what to do, we should long since have been telling what should be done. Our own laxity and apathy are responsible for the present state of affairs, not only in public health work but in such allied problems as health advertising. Advertising agencies sensed the value of making health something to be talked and thought about. In no small measure they are responsible for the growth among our people of the idea that health is a purchasable commodity. How is the public to know, however, whether health advertising is sound any more than they can value the proposal of laymen to establish an institution to prolong life, cure cancer or straighten crossed eyes by massage or manipulation of the spine?

Any scheme, of any kind, which touches the child life of America is of interest to the members of the Academy of Pediatrics. So enormous, so complex, so manifold have these schemes grown that organized effort became imperative. No sphere of activity is more important, however, than the public health work in a community, and to be actively interested in its workings is the duty of every member of the Academy of Pediatrics.

Dr. Joseph H. Marcus (Atlantic City): Our local problem does not differ greatly from the vexations of other communities and as Chairman of the New Jersey State Committee of the American Academy of Pediatrics, we are ready and willing to cooperate and collaborate with the State Department

in exerting every effort to attain even a semblance of adequate and efficient administration, which, in due course of time, will embody Utopian routine of child welfare agencies.

Dr. Frank C. Johnson (New Brunswick): I would like to read, with some pride, the results of the work of our State Society Committee on Public Health. This report and recommendations have been accepted and approved and somewhat acclaimed. I think that we are in advance of the band.

These resolutions are the result of considerable thought and effort. They are our preliminary statements which we are carrying back to our county societies. I hope that Dr. Wilkes and Dr. Schroeder will both come out and address some of these societies and if we can persuade the participating members to be present it will do them a lot of good. The trouble is that when this subject is announced the men are usually playing golf and do not realize that the public is not going to "be damned".

(1) This Committee resolved that the State Medical Society should urgently recommend continuance, by the State Department of Health, of District Health Officers to the full limit allowed, namely, 6. That would help take care of our rural districts and smaller communities as they have not been taken care of in the past.

(2) It was resolved that: physicians should be in attendance at every type of diagnostic or consultation clinic or station, whether it be for adults or children; physicians should be paid for such work; communities should be educated to an understanding that these services are not to replace the private physician and are only for those who cannot afford to pay a private physician; this program should be carried out through friendly co-operation with organizations and public health authorities by the Public Relations Committees of the State and County Medical Societies.

(3) It was resolved that: (a) School clinics should be discouraged. Immunization against diphtheria; vaccinations; surgical, dental and eye clinics; all—should be discouraged because of the danger of abuse of such clinics, and for the more important reason that such clinics should be assigned to their proper place—the hospital. In rural districts, where there are no clinical facilities, the County Societies should make provision for indigent pupils as may seem most expedient. (b) All pre-school examinations and treatments should be done by the family physician. Immunization against diphtheria, and vaccination, should be done for all children during the first year of life, since it has been shown that 60% of all cases of diphtheria in children occur before they are 5 yr. old.

(4) In view of the special problem created by the increasing number of persons availing themselves of free dispensary and hospital service, who can afford to pay for medical service, and following the recommendation of the American College of Surgeons that a definite system of determining the social status of the patient in relation to eligibility should be established: It was resolved that the State Medical Society should emphasize the necessity for developing a Social Service Department in connection with every hospital; and, furthermore, that this phase of the work be delegated to the Woman's Auxiliary to the State Society.

(5) Regarding the relationship of physicians to health and welfare organizations, the following principles are suggested:

Principle 1. In order to establish a working relationship and coördination between physicians and health and welfare organizations, there must be created state and county committees, or councils, composed of the executive officials of the state and county medical societies and the executive officials of the health or welfare organizations, with regular meetings to accomplish such coördination.

Principle 2. All public health or welfare work of a medical nature, performed by physicians who are members of the State Medical Society, shall be on a salary basis—except during a limited initial period for demonstrating the value of such work.

Principle 3. Public or private organizations, and physicians doing health work of any character, shall administer such work so that any person will be assisted in obtaining health facilities in direct proportion to financial ability to carry personal responsibilities in this respect. A classification shall be made, and the following is suggested.

Class 1. Those persons financially able to carry their own responsibilities in regard to health matters.

Class 2. The under-privileged class, receiving less than the living wage and entirely unable to pay for health facilities; persons listed in this class shall receive free treatment at public expense.

Class 3. Those persons who are only partly able to meet their health needs financially during severe or long continued illness or operations. The health needs of this class shall be adjusted by a coöperative plan, conceived and directed by the State and County Medical Societies with the assistance of public and private health and welfare agencies.

Principle 4. All administration of these principles shall be with the object of preserving the private relationship between physician and patient.

Principle 5. It is now essential that the State and County Medical Societies assume responsibility for the general health of the citizens of the state of New Jersey and provide means, in co-operation with health and welfare agencies, for the securing of health facilities by all persons regardless of their financial status.

If this responsibility is not immediately assumed by our State Medical Society, then political, health and welfare agencies will assume—indeed they have already partly assumed—this responsibility, and that will inevitably lead to a disruption of the personal and private relationship between physician and patient, which is the most desirable one for the health needs of the patient.

In view of the above enumerated principles, the Committee recommended the following:

(1) State and county committees or councils should be formed, composed of the executive officials of the State and County Medical Societies, together with executive officials of the Health and Welfare Organizations, for the purpose of holding regular meetings and of coördinating their work.

(2) That the time has come for the State and County Medical Societies to assume leadership and responsibility for the general health of the citizens of New Jersey, and thereby preserve the personal and private relationship between physician and patient, which is most desirable for the health needs of the patient.

It was with considerable hope that we anticipated this report's reception this week. If we can only get it read and studied and get the large body of our component medical societies in-

terested in the work which so vitally affects every one of us we can begin to do things. As to the statements which may seem radical, I would stress the fact that we have only made a beginning in our study of the questions involved and our object is to coördinate all of the agencies that are now interested in public health.

Dr. Julius Levy (Newark): For about 20 yr. we have been interested in this work and it is a pleasure to have been permitted to live to the day when the medical men are becoming so keenly interested in public health work. Dr. Wilkes and a few others, including myself, who are gathering gray hairs, remember the day when even to help in carrying on health work was enough to suggest that we were some kind of an outcast in medical circles. Some one has said that it is a wise thing when young to espouse a just but unpopular cause and to stick to it. Then, sometimes, we enter the gates of glory.

Here, I am reminded of the ordinary church meeting. The minister delivers a very fine sermon, criticizing all members of the church who are not present. In like manner, Dr. Wilkes' very stimulating and Dr. Schroeder's very enthusiastic statements are made to a group who entirely agree with him, but they are not made to people who disagree, and that will explain why these very enthusiastic and well founded plans are often made year after year with very little results.

The report just read prompts me to suggest that we must get down to something more practical than merely *stating principles*. You will have no difficulty in getting any County or State Medical Society to subscribe to the plans proposed by Dr. Wilkes. You will only have difficulty in carrying them out. I should like to have Dr. Wilkes tell us something more about what he means regarding the county medical societies establishing groups and taking care of those who are unable to pay for medical service; and, secondly, those that some one may consider able, but through lack of understanding and appreciation unwilling, to pay. There is the practical side of the question. I happen to be a part of this State Public Health Committee that prepared these statements and I think they are undoubtedly correct, but the real problem is to work out a definite program and to submit a definite plan so that when the speaker is applauded we will also be willing to carry out his recommendations.

Dr. Allen G. Ireland (State Department of Education): Indeed, there has been a lot said today on the subject of public health and it is hard to find anything to add to it. I was glad when Dr. Wilkes started out to hear him say that he had no solution to offer, and then I was more than pleased when Dr. Johnson said the *principles* to which he referred were only suggestions, after all, and that the Committee would be continued to find ways to do all of these things, because, as we stand on the spot and look out into the horizon, I wonder where these pediatricians and family physicians are. I can visualize a county superintendent of schools trying to find a county pediatrician. They are fine principles, fine ideals, and everything about them is good, but we must think of making *progress*—a word which Dr. Wilkes used toward the end of his paper. I do not like to think of progress as some point drawn on the blackboard toward which we are all looking, and when we get there that everything will be settled. We may progress but the point toward

which we are working is continually moving forward, just beyond our grasp, as it should be.

The Health Council suggested is a thing we should try.

I represent the public schools, a vast institution. With each year we see new difficulties, new hurdles to overcome, new problems. I am at the moment rather skeptical about the family physician and the pediatrician handling all these problems, or of the Council handling all of them right away. It is worth a trial, however. It happens that only yesterday at a meeting of the Section of School Physicians I made a suggestion—analagous to the community council. My suggestion was basically the same as this presented today. The experiment is being tried in Bergen County where there is a committee from the County Medical Society to deal with school health problems. The plan is to formulate details, to invite school administrators in and talk things over, to determine principles and to give practical help. It has been functioning 2 yr. now and is doing good work. I suggested that we try that method in other counties, possibly in all 21 counties. That is certainly bringing the county medical society into the picture, as it should do, and it is getting a group within that county society who are primarily interested in the school's agencies and who will try to find solutions to these problems and recommend them to the school administrators of the county.

I visualize the possibility of a state group which would be made up of representatives from these county school health program committees. One unfortunate part of that scheme has been revealed to me at this convention by the comments of one person who knows the facts and who stated that not all practicing physicians belong to the county societies or to the State Society, and a lot of those non-members are working in the schools. Right there we are facing a difficulty for which I see no immediate solution.

Dr. Johnson mentioned the word dental. I think that is unfortunate and out of place because there happens to be a State Dental Society that has already gone on record as favorable to those principles which the committee proposed. It has appointed a committee to help promote those clinics, so that while it is not my place to criticize, I think possibly that word "dental" should be taken out.

As I talk with the school people throughout the state about their problems I see certain definite trends. One of them is recognition of the physician for his special talents, as a specialist and as an adviser of the school staff. The child goes to school to absorb information that he may pass an examination or win the teachers' approval; but he also goes there, more and more as the years go by, to be fashioned into an individual who will go out into life taking his place as a unit, as a parent, as a citizen and as a home builder, and we are going to learn that 3 hours a day of calculus does not necessarily contribute to his proper place in society, but that mental health, personality, and the knowledge of what life is all about make up the good citizen. The school is increasingly looking forward to that. Consequently, as that attitude goes forward, the alert and progressive administrator wants the specialist in health to stand beside the art specialist, the music specialist; he wants some one from the community health council or the State Society to advise him in the length of period, the number of hours a child should go to school, which child should take home work to be done, what he should have

for lunch, which child should engage in activities. I could go on illustrating situations where the physician on the school administration staff has a large part to play. The physicians should make up that community group, but I am standing out for the school physician and the school nurse because we need them as an integral part of the co-ordinated school machine.

Dr. Ellen C. Potter (Director of Medicine, State Department of Institutions and Agencies): In common with all those who received their medical education more than 25 yr. ago, I knew little about public health when I graduated. It is, however, exactly 20 yr. since I was first introduced to one phase of it, in company with the principal speaker of the afternoon, Dr. Wilkes, when we worked together as school medical inspectors in Philadelphia.

My conception of public health at that time was that it was something concerning welfare of the people out in the community. When I took charge of the Child Health Division of the Pennsylvania State Health Department, I still had the feeling that public health related itself entirely to problems outside of institutions. When I became familiar with the field of public welfare it became apparent that there was an obligation relating to public health which was behind institutional walls and which also related to the handicapped members of society outside of the walls, and that both of these phases of public health were responsibilities of government—municipal, county and state.

One of the major problems in the institutional field was often created by errors in technic or lack of adequate health service in the community from which the inmate came, which resulted in the development of epidemics in institutions where they might have been avoided. In other instances, individuals sent in to institutions were suffering from remediable physical defects which should have been corrected many years earlier.

Correction of these defects in so far as possible then became the responsibility of the institution to insure that when the time came to send those individuals back into the community they would not carry additional public health problems with which the community would be called upon to struggle. This afternoon it may be of interest to the pediatricians of New Jersey to hear something as to the manner in which the Department of Institutions and Agencies of New Jersey seeks to meet the problems indicated.

Speaking only of State institutions, and of State responsibility, we have an inmate population of more than 13,000 persons; on our parole lists are 3500 others; under guardianship of the State there are 30,000 children under 16 yr. of age; a total of 46,500 persons for whom the State is responsible as to health and welfare.

To handle the health problems of our wards, the State employs 5 medical superintendents and 77 staff physicians, in institutions; and, in addition, we have coöperating with us in about half of the counties, 42 local medical practitioners; making a total of 124 physicians who are coöperating in the handling of the health and general physical welfare of our children and adults. We have also 19 dentists engaged in institutional work; 9 full-time, 6 part-time, and 4 dental interns who have their D.D.S. but have not yet had a sufficient period of practice under supervision; and 20 graduate dentists are coöperating, in various counties, in the care of Board of Guardians children; making a total of 39 engaged in dentistry. This coöpera-

tive program has been worked out with the approval of county medical and dental societies.

But, doctors and dentists are not enough; in addition, we have 168 graduate nurses and several score of pupil nurses in the state employ. That means that the State of New Jersey really has officially under the care of its welfare department a good sized city of about 45,000 inhabitants for whom the Department is responsible in so far as their social welfare, physical health and general custody are concerned.

In 1927, our juvenile institutions were suffering from many unnecessary epidemics. Scarlet fever, measles and other communicable diseases were present, and this problem needed immediate care. I am a great believer in coöperation and we laid our problem before the State Health Department and asked for a proper program of immunization, and the program laid out is now in force. During the first 3 months of 1932 (and we are just beginning now to assemble our statistics) there have been given more than 5300 inoculations against typhoid; 600 administrations of toxoid or toxin-antitoxin; 2400 vaccinations; 200 Schick tests; 3000 Wassermanns; and, of course, tetanus antitoxin given occasionally. It is gratifying to know that the 2 cases of diphtheria which have appeared in the institutions during those 3 months were brought in rather than being caused by any neglect on the part of the institution in relation to immunizing treatment.

During the first 3 months, what has been the record of State institutions as to contagious disease? Instead of having epidemics of measles and other such communicable disease, disturbing the work of these institutions, our technic appears so promptly to isolate the first patient that we practically make epidemics impossible. There have been just 2 cases of measles, one in each of 2 institutions, and 2 cases of scarlet fever. In March, unfortunately, influenza was prevalent throughout the state and a number of children from North Jersey were committed to the State Home for Boys, and the State Home for Girls. Within a few days we had a virulent epidemic with a total of more than 600 cases. While many of these were severe, there was not one fatality. In the midst of that epidemic, 1 case of epidemic cerebrospinal meningitis appeared and resulted fatally within 3 hr., but no others developed. There were 51 cases of pneumonia, chiefly in the mental disease hospitals; 1 of whooping-cough; and 3 of diphtheria. Of 2000 or more tests for syphilis, 20% were positive. We are indebted to the State Department of Health for diagnostic services in this field and, in some degree, for medication.

We have set up a system of reporting in regard to acute illness of various sorts other than contagious disease which will give us a check upon the effectiveness of the general health program and any weakness in the administrative service so far as it relates to health. Our returns come in regularly as to the number of individuals who are receiving attention in the infirmary units of the institution and the reports for the last 3 months show an admission of approximately 6605 patients for all sorts of minor ailments; with about 100 requiring major operative procedures, and 694 needing minor surgical work.

Our dental service is an efficient one. We have one of the outstanding men of the State Dental Society as Consultant to the Medical Division of the State Department and he is responsible for the dental interns to whom he gives supervision and splendid training so that when they leave us

(for we cannot afford salaries adequate to hold them for more than 2 yr.) they are beneficent additions to the professional group in any community. In the first 3 months more than 11,000 dental examinations were made. It is necessary to keep a continual dental survey going on, otherwise Vincent's angina creeps up somewhere and is difficult to eradicate. During the 3 months for which I am reporting, 4049 dental radiographs were taken; 3005 fillings; 5948 extractions; and 8836 treatments given for Vincent's angina.

In all institutions and for all the wards of the State Board of Children's Guardians a careful physical examination is made on commitment and a corrective program is carried out whenever possible.

In the State Home for Girls, and Clinton Reformatory, the need for an obstetric service is apparent. There are, on daily average, 30 infants in care at Clinton and 20 at the State Home for Girls. During the first 3 months of this year there were 64 mothers in care, with 15 births and 3 infant deaths. The high death rate is not surprising when one considers how often the pregnant woman or girl is committed shortly before her confinement and without any of the advantages of pre-natal care. In both of these institutions a complete program of pre-natal and post-natal care is conducted. The mothers are taught the details of infant care and, at Clinton, where it is frequently necessary to keep the children until they are 3 yr. of age, a nursery school program is in force.

In all our institutions the opportunity present for control and care of venereal disease is utilized to the maximum, and one of the conditions of parole is that the disease shall have reached a non-contagious stage, and treatment in the community shall be regularly continued.

The services of the Department outside the institution walls as they relate to public health may be summarized as including the mental hygiene clinics, which now number 52 and in which more than 2500 patients were examined and advised during the past 8 months; and also as including tuberculosis clinics which now number 84 and which are conducted as coöperative state and local undertakings.

In addition to these services, there is the problem of curing disease and defect and maintaining health for the army of 30,000 children who are wards of the Board of Children's Guardians.

The Health Committee of the Board has appointed an Advisory Health Committee of physicians, psychologists, and dentists who serve as consultants on policy. A nurse adviser is on the staff to interpret to social investigators the health and sickness problems. It is the aim of the Board ultimately to secure competent medical and dental service sufficiently widely scattered to provide the service needed for all their wards at rates equitable to the profession and fair to the taxpayer, and an effort is now being made in that direction.

I can sympathize with Dr. Ireland when he says that the Superintendent of Schools often has difficulty in securing a practitioner in his community who has his point of view and the willingness to do the type of advisory work that we need in order to get the maximum results in our public health work with children. I can appreciate the difficulty that the Superintendent might encounter in an effort to secure the services of such a man at a price he can pay.

Unfortunately, the tax money which the state and county collect is in part paid by the physi-

cian and he is caught between the horns of a dilemma. We have endeavored, and have succeeded in one area, in making very satisfactory arrangements with the medical profession for reasonable fees for work to be done. I can think, however, of another county in which the attitude is that "the sky is the limit" and that the top price for visits or operations are to be exacted because "the State" (as a matter of fact the county) is to pay. This necessitated another type of arrangement with a full-time individual on the institutional staff doing the work which might conceivably have been done advantageously by the local physicians. This makes a very difficult problem for the government, and I agree with the idea of bringing together, in community council fashion, representatives of the medical profession, the health agencies and the social agencies for a discussion of their common problems. Arriving at some well thought out social program is necessary; and if behind this there shall be social statesmanship and not merely a desire for commercial gain, on the part of any one, then the common good will be well served.

There should also be recognition on the part of social agencies and health agencies of the fact that the physician "is worthy of his hire" and that he should be paid for the services he renders. Out of such a council and grouping of interests, thinking through together the problems that are involved, we can certainly get something that will be better for the welfare of all children and also for the rest of the population. It would be to the advantage of the physicians as well as to those concerned with social work. As everybody knows, I am strong for county organization in welfare and health service, and I would gladly go along with the council idea.

Miss Evelyn Walker (Monmouth County): I cannot let the Public Health nurses go unrepresented. I am sure that we all listened to every word that Dr. Wilkes said with joy and appreciation. I would like to add something to what Dr. Levy said. He very casually remarked that every medical society would subscribe to Dr. Wilkes' paper. It is not so long ago since such a paper read before a medical society would have created a sensation and so I feel, as an outsider looking in, that this is evidence of a tremendous step in advance. You all know that our Monmouth County Society, of which we are so proud, would subscribe to it and would even go a great deal further.

Chairman (Dr. Nichols): I heard a nurse remark that "the program looks pretty good but the Chairman looks awfully young". A remark which rather intrigued me because I came along with Dr. Wilkes and Dr. Potter and the generation that started on a medical career more than 20 yr. ago. I am rather proud that those of us who did not get much public health instruction in medical school are now so interested and active. We are mostly self-educated along that line. Concerning these matters, I was much impressed by Professor Carlson's statement, made at the Washington White House Conference, that "we know more than we do". Thinking about that, I realize that a lot of folk in the State of New Jersey need to start using what they know.

Dr. Ireland is one of the greatest assets of our State in health education, and Drs. Levy and Potter have also been actively coöperating in this work for a long time. I think our State Child Health Conference should see this opportunity for

beginning work and should know the interest which is developing rapidly in the State Society. We will unquestionably make many mistakes, but I think this year and last year will be marked "banner" years in the history of the State Medical Society, in the direction of incorporating the Society and the medical profession into the community health program.

Dr. Wilkes (closing): Thank you for the opportunity to present this "noble experiment" and also for the criticisms given.

Dr. Potter and I began work together in public health 20 yr. ago, in Philadelphia. We have discussed many of these questions. You have here in New Jersey a well-organized service of specialists and administrators who need the help of your private physicians in their public health programs. Plans for getting the services of young physicians through proper medical channels, such as the County Medical Societies, must be made and utilized. Dr. Potter says she cannot pay them adequately so she gets young recent graduates in medicine. A smaller salary for the younger physician who is being partly paid in money and partly in experience is proper. When an executive gets someone who is not actively interested in the work and pays him a salary it is often a waste of money. One hour's time of a well-trained and adequately paid pediatrician who has that glimpse of the possibilities in the public health field is an economic investment. These well-trained pediatricians should be so many in number and be so scattered about the state that Dr. Potter should be able to go to the County Medical Society and request 35 pediatrician-hours and pay for that number at a fixed rate and be assured she will get good men. The County Medical Societies have the men who are qualified and when they have signified their willingness to supply that service the health administrators will be glad to work with the private physicians through their society.

You have within the medical profession trained public health organizers who can plan a Community Health Program and allot specific jobs to their colleagues who are in private practice, and who are fit and ready to serve in the community health program.

I agree with all that Dr. Potter said and with everything that Dr. Ireland said. We do need in high places, in the State Agencies, and so forth, full-time medical officers for advice and administrative work. We should also bring into the community service part-time medical practitioners who will render service when needed so that we shall not have to carry large full-time staffs but can buy pediatric-hours from the County Medical Society at a reasonable price. I also agree that every school board should have a full-time pediatrician on the board or as director of the health staff; one, however, who understands schools and school work, or he won't get very far with this program. One must fit an intricate medical service in with other school services. One of our great difficulties is that we think that because we are pediatricians or physicians we render better service. If we cannot demonstrate that we do, because of the fact that we are physicians, render a better type of service than someone else, we won't get far.

The man whom I wanted to disagree with me is not here. I mean the man who says the doctor alone must do these things, and nobody else has a right to do them. The right to do a job is his who does it best. If we as physicians cannot ac-

tually do the job better than anybody else we have no right to think that we alone should be allowed to do it. We must have a basis of fitness rather than the simple fact that we are medical graduates.

Dr. Levy's remarks as to the technic of group-handling are simply answered. School and health departments have for years at a given time and place immunized 200 children per hour. Of course, some one has made the records and dilutions, and the nurse has gathered the children, prepared and made everything ready. The doctor comes in to an organized service, does not waste his time on clerical work, but gets right down to the medical work which only he can do. As a matter of fact, I think a nurse under medical supervision can give immunization injections just as well, but so far we have had the doctors themselves do it. The private physician does not immunize one child per minute. The child must make several visits, which demand the entire time of the physician, which is worth money. Of course, if the patient wants all of his attention he should be able to get it if he is willing to pay for it. But if a lot of people are willing to come to the physician's office on the same day and have the treatment at say \$1, there is profit to both. A doctor who does 100 immunizations in an afternoon at 50 cents each, makes a profit and protects many children.

What I am trying to do is to create a demand for the preventive services of the private physician and have him ready to render the service required. The change in the point of view regarding preventive services of the physician of today is remarkable and encouraging. We have passed the most discouraging stage in the evolution of medical service, I think, and I am very enthusiastic about the future of preventive medicine. The recognition and discharge of the dual responsibility of the physician is spreading rapidly. The trouble has been that we public health administrators do not want to wait to build up our program slowly but we want to start in with a tremendous plan of reorganization. Suppose we do not yet have a professionally trained social organization in the community. If we have someone with sufficient sense to do what she is told to do, we can make a start. The physician may wonder why a baby is losing weight when it has been given the correct formula, but when the social worker investigates she finds that the family cannot buy even a glass of milk. Some day we will realize that these community health programs must grow and that we cannot start out with a finished product.

A young girl who was engaged by a tuberculosis association in Oklahoma wrote asking about how to begin a tuberculosis program. She stated that nobody knew who the tuberculous people were down there. I advised her to get herself appointed as school nurse even if she were not paid for this service, as in that way she could get into the homes, and when she had found some cases of tuberculosis she would have something to start on. The last time I heard from her she was the school nurse and had gotten another nurse to come down and take care of the tuberculous patients. She started a Visiting Nurse Association later. This same nurse got into trouble with some Christian Science parents during an epidemic and, upon my advice, appealed to the State Health Officer, who assisted her in her program. She started out in a very small way but today has an organization there through her own efforts and the good results she demonstrated.

A community child health program does not need all services to start with, but as the need grows the work can be increased. I believe that the medical profession, as specialists in the health field, should be called on for health advice and service as they are needed, and they would eventually benefit professionally and financially.

Dr. Potter spoke of the fine work that has been done in New Jersey in the control of contagious diseases. That is the type of coöperative community health service we should work toward. We should try to draw in our private medical colleagues more and more so that they will not only work among their private patients but will recognize that obligation involved in the Hippocratic oath of rendering service to all individuals who need it. I think we still have the obligation to take care of the fellow who cannot pay us, but according to a Community Health Plan and at community expense. The idea back of this paper is to emphasize the importance of our obligation in looking after the fellow who is "in between" financially, and do it in a systematic organized way. We provide very well for the indigent, and for the individual who can pay for our full, undivided attention for a sufficient time to take care of his needs, but what about the fellow in between those groups. I believe if we were better organized, with the young physicians assisting we could meet that problem regarding this individual patient and better serve the community at large.

VALUE OF ANTITOXIN SERUM IN THE TREATMENT OF PNEUMONIA

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Pneumonia as a cause of death takes a high place in our mortality records, municipal, state and federal. In 1926, there were 61,649 deaths from pneumonia in the registration area of continental United States. The disease is always prevalent to some degree in cities, but is most prominent during the winter and early spring months, which is the season for low temperature, rapid changes in weather and the prevalence of colds and influenza. The recorded pneumonia mortality in the average city fluctuates with epidemics of influenza, grippé and measles, although high mortality is constant irrespective of such inciting causes. In Newark, a city of 450,000 inhabitants, the normal figures for a period of 11 years were 2703 cases and 584 deaths, from all forms of pneumonia, annually. Pneumonia is generally accepted as being a communicable disease and, therefore, preventable in nature,

but the proper approach toward solution of its prevention problems is still controversial. There is no doubt that atmosphere, with its mechanical impurities, has a marked effect in weakening the individual's resistance to attack; so that soft-coal-cities have a higher proportion of prevalence and mortality from pneumonia than those using anthracite. Campaigns, such as the one made in Pittsburgh, for less coal-smoke and dust in the atmosphere, have had an undoubted effect in reducing pneumonia mortality. The campaign for prevention in other situations is, broadly, one of education in personal hygiene, with an effort to promote a more extended use of fresh air and exercise for the average wage-earner. Until some good prophylactic means is available to combat our annual pneumonia incidence, the interest of physicians and health officials centers upon the possible development of an antitoxin serum which will reduce the present high mortality rate.

TYPES OF PNEUMOCOCCUS

Research has shown that the term *lobar pneumonia* is a generic application to a pneumonitis due to a variety of possibly inciting agents; that, indeed, the *Pneumococcus* of Frankel is a family name for several distinct types of pneumococcus. Thus, we have Type 1, which is present, on the average, in 33% of lobar pneumonias and has a case fatality of 25%. Type 2 has a prevalence of 29-31% of all cases and a fatality of 32%. Type 3 is less widely distributed, the incidence being 12.5%, but has the high case fatality of 45%. Type 4, which comprises all pneumonias not in types 1-2-3, is made up of a great number of undetermined strains, and accounts for 20-24% of cases, with a mortality of 16%.

SERUM TREATMENT

Inasmuch as Types 1 and 2 of the pneumococcus were generally known to be present in 64% of all lobar pneumonias, considerable interest and hope were aroused by publication of Felton's work upon a concentrated serum (Boston M. & S. J., 190:819, May 1924), (J. A. M. A., 94:1893, June 14, 1930) containing the antibodies produced in horse serum by Types 1 and 2 of the pneumococcus.

Cecil and Plummer (J. A. M. A. 95:1547, Nov. 22, 1930) reported a series of 239 cases of Type 1 pneumonia treated in the wards of Bellevue Hospital, New York City, with Felton's serum, showing a death rate of 20%. A control series of 234 untreated Type 1 pneumonia patients gave a fatality rate of 31%. In a further publication upon the use of Felton's concentrated serum for Type 2 pneumonia patients, Cecil and Plummer (J. A. M. A. 98:779, March 5, 1932) reported a series of 252 patients with a mortality rate of 40.5% as compared with 45.8% in 253 patients not so treated. Twenty-one patients who had the benefit of intensive serotherapy had a death rate of only 14.3%.

Newark results. As the result of favorable reports upon the use of a combined serum for Types 1 and 2 of the pneumococcus, made by Felton's method, it was decided by the Health Department to supply this serum free to patients in the City and other Hospitals, provided that a satisfactory report of use of the serum was furnished in each case. Proper typing facilities were provided in the Health Department Laboratory, by having a bacteriologist properly trained in Bellevue Hospital Laboratory under Drs. Cecil and Plummer.

The free supply of Felton's concentrated serum for Type 1 and 2 was started in the early winter months of 1931 and continued to April 1932, during which time an accurate record was kept of 121 patients with lobar pneumonia under this treatment. Owing to a delay in typing facilities, however, a large quantity of the serum was used for *untyped* infections so that we were unable to check-up on its value in this group.

Types found. Among the 121 patients with lobar pneumonia treated with serum, the following is the incidence of the various groups:

	Incidence	Per cent. of total	Deaths	Case fatality
Type 1	17	14.0%	2	11.7%
Type 2	21	17.3%	2	9.5%
Type 1 and 2 com- bined	2	1.7%	1	50.0%
Type 3	8	6.6%	4	50.0%
Type 4	39	32.2%	15	38.4%
Type Streptococcus	6	4.9%	6	100.0%
Type mixed infec- tion	4	3.3%	1	25.0%
Type no pneumo- cocci	5	4.1%	1	20.0%
Type not known	19	17.3%	6	31.6%

The low incidence of Types 1 and 2 among this group was probably due to the fact that 17.3% were untyped and 3.3% were mixed infections. Serum was given, however, as soon as clinical symptoms made possible a diagnosis of lobar pneumonia, so there was no delay in the giving of the antitoxic serum. Later on, in the winter, however, serum was only given to those who were typed, as there had been an indiscriminate use of serum whenever the diagnosis of lobar pneumonia was in doubt; 5 patients eventually were diagnosed as not having pneumonia at all, although serum was administered. The age incidence of this group is shown in the table below.

	Incidence	Per cent. of total
Under 5 years	2	1.6%
5-14 years	12	9.9%
15-24 years	21	17.3%
25-44 years	45	37.1%
45-64 years	32	26.4%
65 years and over	9	7.4%

Among the total number of patients, 77 were males and 44 females; 33 were colored; 13 were treated at home, and 108 in hospitals, the majority of the latter in the Newark City Hospital; and the case fatality rate was 31.4%.

Patients with *pneumonia of Types 1 and 2* were treated with Felton's polyvalent serum for Types 1 and 2 of the pneumococcus, concentrated and antitoxic. It was manufactured by a concern nationally known for its biologic preparations and was used for all the patients under treatment. Because the number of patients of each type was small, and the serum was specific for these 2 types of pneumonia only, it was considered preferable, so as to give a better picture of the results obtained, to group them. There were 38 cases of lobar pneumonia of pneumococcus Types 1 or 2, treated with Felton's serum; an incidence of 31.4% of the total number. Recoveries numbered 34, and deaths 4, making a case fatality rate of 10.5% for the 2 groups combined. Among the 17 cases of Type 1 pneumonia, the case fatality was 11.7%, and among those of Type 2, 9.5%; while 2 instances of Types 1 and 2 combined gave a case fatality of 50%. Among the Type 1 pneumonias reported by Cecil and Plummer (J. A. M. A., 95, 1547-1553, Nov.

22, 1930) treated with Felton's serum, the case fatality was 20%, as compared with 31% among untreated controls. The fatality rate among Type 2 patients reported by the same authorities (J. A. M. A., 98, 779-786, March 5, 1932) was 40.5%, as compared with 45.8% among untreated controls. The case fatality rate among Cecil and Plummer combined Type 1 and 2 pneumonias treated was 30.2%. The age incidence among the group of 38 patients in Newark, with lobar pneumonia Types 1 and 2, is given below.

Age	No. patients	Per cent. of total
Under 5 years	1	2.6%
5-14 years	4	10.5%
15-24 years	7	18.4%
25-44 years	17	44.7%
45-64 years	6	15.7%
65 years and over	3	7.8%

Of the whole group, 33 patients were treated in hospitals, and 5 in their homes. The results with Felton's serum were described as: good, in 29 cases; excellent, in 3; very good, in 1; no improvement, in 4. The temperature changes were by gradual lysis in 27; and by crisis, in 8, immediately following the first or second injection of serum. A drop of 1° or 2° was recorded as following each injection in nearly all except the fatal cases; among those 4, 1 had a bacteremia with a pneumococcic meningitis; 2 were in extremis when received in the hospital; and the fourth was a man of 70 years of age, who had a history of chronic alcoholism. The average amount of serum used for each patient was 50,000 units, although in extreme cases the amount was much larger; for instance, 150,000 units were used for the patient with blood infection and pneumococcic meningitis, and who could not be saved.

Type 3 pneumonias. Of patients with Type 3 pneumonia, 8 were treated with preliminary doses of 10,000 units of Felton's serum before proper typing was done. Of these, 4 recovered and 4 died; a fatality of 50%. The serum results for Type 3 cases were stated to be unsatisfactory.

Type 4 pneumonias. There were 39 patients treated with Felton's serum, with 15 deaths; a case fatality of 38.4%. Immediate fall of temperature occurred with 2 patients after the

first dose of serum; with 4 other patients, the results are described as improved or good; the majority had only 1 dose of 10,000 units and the serum was discontinued as soon as the type was reported. One patient had 60,000 units, with improvement after each injection. All the others were reported as showing no change in condition and no reduction in temperature.

CASES UNTYPED AND OTHERS

There were 19 pneumonia patients treated with serum before typing facilities could be developed; 6 died, a fatality rate of 31.6%. Of 6 with streptococcus pneumonia, all died. Of 4 with mixed infection, there was 1 death, a 25% fatality. Serum was given to 5 patients whose condition was later proved not to be pneumonia.

SUMMARY

Among 121 cases of lobar pneumonia, of all types, treated with Felton's serum, the fatality rate was 31.4%; 38 cases of pneumonia, Types 1 or 2, treated with Felton's antitoxic serum, had a case fatality rate of 10.5%. Among a small group of 17, Type 1, treated with Felton's serum, the case fatality was 11.7%, and among a group of 21 treated cases of Type 2 pneumonia, the fatality was 9.5%.

The Felton's serum used was polyvalent for Types 1 and 2 of the pneumococcus. Other types of pneumonia, as well as the streptococcus groups, were not improved by the serum. The best results were obtained by early administration of the serum, and, when typing had been carried out, by repeated doses until temperature fell. The temperature changes observed were generally by lysis, although in 8 instances there was an immediate fall to normal, or thereabout, after the first or second dose of serum.

The 4 fatal cases among the group of 38 of Types 1 and 2, were complicated by blood infection, acute alcoholism, or delay in coming under treatment. The incidence of Type 1 and 2 cases in the whole group (32.2%) is low and probably due to the number of untyped cases.

Conclusion. The favorable results obtained

in the few cases of Type 1 and 2, by use of Felton's antitoxic serum, would indicate that there is definite usefulness for this serum in the treatment of lobar pneumonia. In any free distribution of serum for this purpose, typing facilities must be properly provided; otherwise, much valuable serum, as well as time, will be wasted. The results obtained have borne out, generally, the conclusions of Cecil and Plummer, that "Every patient with Type 1 pneumonia should have serum treatment", and that "concentrated and refined serum has some therapeutic value in the treatment of Type 2 pneumonia. Certainly it appears more promising than any other form of specific treatment available". (J. A. M. A., 98, No. 10, March 5, 1932). The Newark experiment has opened up a field of pneumonia therapy that will do much to extend the use of antitoxic serum for suitably typed cases.

(I wish at this time to extend the thanks of the Newark Department of Health to Drs. Russell L. Cecil and Norman Plummer, of Bellevue Hospital, New York City, for valuable assistance rendered in the training of the necessary personnel for the laboratory typing of pneumonia patients.)

A SAFE METHOD OF CATARACT EXTRACTION

With Report of Results in 100 Operations*

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The purpose of this paper is to report 100 cases of cataract extraction done by what we consider a more conservative method, and we feel that the results will compare favorably with those of the intracapsular method.

These case reports all concerned private patients of Drs. George E. de Schweinitz and B.

F. Baer, Jr., and the operations were done by Dr. Baer, with the writer of this paper assisting. They are not absolutely consecutive, but are all of patients who had before operation presented a favorable prognosis for uncomplicated recovery; and in this respect they are consecutive. We do not feel that it is fair to report cases of glaucoma, for instance, in which cataract development necessitated operation.

The technic used follows closely that which is taught in the Graduate School of Ophthalmology, University of Pennsylvania. A negative 48 hr. culture from the cul-de-sac of the eye to be operated on is secured. Bacillus xerosis, or only a few colonies of Staphylococcus albus, are regarded as negative; many colonies of Staphylococcus albus, any colonies of Staphylococcus aureus, streptococcus or pneumococcus, are always regarded as positive cultures, and operation for cataract is never done in the presence of such a culture.

The patient has been in the hospital at least 1 and usually 2 days before the operation. The bowels are entirely emptied by a laxative the day before and an enema the morning of the operation. A preliminary dose of morphine is given the day before the operation to determine whether the patient happens to be sensitive to this drug, since such a sensitivity produces nausea and vomiting, which is certainly undesirable following a cataract extraction; though if morphine can be used safely it is often a great adjunct to our armamentarium. To patients who are not hypersensitive 1/6 gr. of morphia sulphate is given hypodermically 1 hr. before operation.

On admission to the hospital, after the eye culture is taken, mercurochrome 1% is instilled into each eye, followed by mercurophen (1-20,000) irrigations t.i.d. Both eyes are prepared and sterile dressings applied 1 hr. before operation. All patients are given a tub bath the day before operation; the men are shaved and the women, if they have long hair, have it braided.

As an anesthetic, at time of operation, 4% cocaine solution is used, 1 drop being instilled into each eye, and this is repeated twice, at 5 minute intervals in the eye for operation.

*(The first part of Dr. Shipman's paper was devoted to a review of cataract extraction history, tracing the development of modern operating methods from the early description by Celsus to the recent contributions of Barraquer and his followers—historic matters omitted here to conserve space and save expense—Ed.)

No injection of the facial nerve is done. The Weiss speculum is inserted, the lashes cut with straight scissors and then covered with White's ointment. The section is made with Graefe knife, the operator standing at the head of the patient for operation on the right eye, and at the left side for operation on the left eye. If iridectomy has not been done as a preliminary measure, it is now performed. The speculum is removed, the Smith lid-hook is inserted under the upper lid, and the operator holds it with his left hand during the following stages of the operation; the assistant holding the lower lid down by steady but gentle pressure on the cheek with the thumb of his left hand. If iridectomy has previously been performed, the Smith hook is inserted immediately following completion of the corneal section.

The operator now stands at the head of the patient, and with control of the upper lid by the Smith hook in his left hand, inserts with his right hand the capsule forceps, and attempts to grasp the anterior capsule of the lens and, if successful, removes a considerable portion of the capsule, though often the cystitome has to be used. After the capsule has been removed or broken, the cataractous lens is expressed by steady pressure with a spoon over the lower third of the cornea; counter-pressure above being seldom necessary, but when it is, the assistant may do it, or hold the Smith hook so that the operator is free to do this with his left hand. If cortex remains in the anterior chamber, this is irrigated with normal saline solution, using the hand bulb irrigator with a blunt glass tip. The toilet of the eye is then quickly completed, and the lids closed. Sterile dressings are applied to both eyes, and these are covered with metal shields. On the following day, the bandages are removed, the eyes inspected externally, and a drop of atropine solution is placed in the lower cul-de-sac of the eye operated on, though no attempt is made to see the cornea wound.

The patient is kept flat on his back for the first 48 hr., unless contraindicated. The eyes are dressed daily and both eyes kept patched until the sixth day, when the patch is removed

from the untreated eye. The seventh day both patches are removed, and on this or the next day the patient is allowed out of bed. The average time in the hospital is 2 weeks.

For the first 2 days the patient's diet is liquid, and on the night of the second day 5 gr. of cascara sagrada is given; and, if the bowels do not move next day, an enema is given. Then, the patient is placed on a soft diet for 2 days, and on house diet thereafter.

The nursing of cataract patients is of the utmost importance, and every patient should have a special day and night nurse, well trained in eye nursing, for the first week certainly, and longer if possible.

The results obtained in these hundred consecutive cases, in which good results were expected, as treated by this method, were as follows:

Vision of	6/6	or better	in	43
"	"	6/9	"	"
"	"	6/12	"	"
"	"	6/15	"	"
"	"	6/22	"	"
"	"	6/60	"	"
"	"	2/60	"	"
				83
				92
				94
				96
				97
				98

Evisceration was necessary for 2 patients; one because of panophthalmitis, and the other due to an expulsive intra-ocular hemorrhage.

The 2 patients with 6/60 and 2/60 vision respectively, were highly myopic and had more retinal degeneration than their light fields indicated.

COMPLICATIONS IN THIS SERIES

Iridocyclitis occurred in 8 cases.

Slow closure (7 days) in 1; while another patient developed a marginal ulcer which delayed complete closure for about 9 days.

Prolapsed iris in 2; quieted down after excision.

Bulging wound in 2.

Secondary glaucoma in 6; all of which cleared up under miotics.

Hemorrhage from iris in 6; all gradually absorbed, and caused no damage other than making needling necessary.

Vitreous was not lost at the time of operation in a single instance.

Needling of secondary cataract was necessary in 27; and in only 1 of these did secondary glaucoma follow.

This low percentage of needlings is contrary to the opinion of some that secondary cataract usually follows extracapsular cataract extraction, and necessitates needling. Also, the presence of only 1 secondary glaucoma in 27 cases of needling makes one believe that this much dreaded complication may be due to technic, and I do not think its frequency would be so great if the knife needle were properly used. Many men try to obtain too large an opening in the cataractous membrane, and in doing so cause more damage than they should. A small centrally placed opening is sufficient and, indeed, usually more satisfactory than a large one.

The vitreous changes following needling were not marked. In no case did vitreous appear in the anterior chamber. Certainly since we are now convinced that there is a hyaloid membrane separating the vitreous from the lens and anterior portion of the eye, why should a small incision in this membrane cause serious damage? A needling can sometimes be done without incising the hyaloid. My own feeling is that when vitreous is demonstrated in the anterior chamber of an aphacic eye, it got there at the time of cataract extraction, and I believe that if it is looked for in cases of intracapsular extraction its presence will be found more frequently than is supposed.

I am curious to know how many of the beautiful results from intracapsular extraction, when followed over a period of years, will have remained permanent. Is it not possible that even they may develop a certain type of secondary cataractous membrane, necessitating needling? Cowan has demonstrated with the slit-lamp a proliferation of epithelium over the hyaloid membrane following many intracapsular extractions.

Certainly, I have found the intracapsular technic, as described by Knapp, applicable to only a small number of the cataract extractions in which I have tried it, and when it failed I fell back on the technic which I have described.

It is not my purpose to condemn the intracapsular cataract operation for I have seen some beautiful results following it, and I hope

to learn how to use it in selected cases. My plea is that we should not be carried away by its excellent immediate results, and abandon an older and longer tried method, with which universally good results have been obtained by competent men. Indeed, no method is going to be perfect; but I believe the more conservative method which I have described to you will be more suitable to the usual type of senile cataract, and if properly adhered to it will give better and more lasting results to a greater number of patients.

DISCUSSION

Dr. William K. Campbell: The giving of morphine is a procedure which I would feel very doubtful about, even with a patient who does not react unfavorably, to a dose given 48 hr. previous to operation. I would be adverse to giving morphine immediately previous to the operation. I had an unfortunate experience once with a patient to whom I did not know that morphine had been given. The intern gave it in his routine work, and the patient started vomiting 2 hr. after the operation and vomited throughout the night. You can imagine what happened to the eye. We got a fair result but not what I should have liked.

As to the question of pressure and counter-pressure on the eye, it seems to me that if used very carefully, especially counter-pressure, they would be of material help in delivering the lens. Of course, one of the most important things in cataract extraction is that your incision should be of proper length.

As to a patch kept on the unoperated eye for 6 days, I have found so often that patients become very restless if a patch is kept long on the unoperated eye, and it would seem to me that inasmuch as your section heals, or starts healing within 48 hr. that it would not always be necessary to cover the unoperated eye for such a long time.

I was going to ask Dr. Shipman the date at which the visual acuity was taken after these operations. I think, however, he covered that in stating the number of postoperative secondary cataract operations that were done.

I believe that the capsule forceps is a considerable factor in the lessening of secondary cataracts. If you can remove anterior capsule over a sufficiently large area, which you can do by care with capsule forceps, it does prevent secondary cataract.

Regarding intracapsular cataract operations, I had the pleasure of hearing Dr. Barraquer's paper a number of years ago, and it seemed to draw our considerable discussion, but I have heard very little of the operation in this country. As to the Smith intracapsular method, I happened to see the postoperative results in a number of cases, and I was not very much impressed because in those particular cases the results did not average any better than our present extracapsular operation.

Dr. Andrew Rados: Concerning the subject of intracapsular cataract operations, I would like to offer some corrections. First, the intracapsular modification was not an operation devised by Knapp; it was first done by Pagenstecher about

50 years ago, and he later reported about 150 operations by that method. But, Pagenstecher and his school did not advise the intracapsular method for every case, and somehow this method did not gain wide publicity, and only his old assistants continued it. Later, the Smith method was devised and had many followers, especially in English-speaking countries, but was discarded in a few years.

The Knapp method consists in tumbling the lens as the operator brings it out. On the other hand, Török does not tumble the lens. Even these 2 modifications did not become very popular until Elschning began to utilize it, and recently he reported 1500 operations by the intracapsular method.

Naturally, every operator has his own method, and trouble usually arises when someone tries to switch over to a new method. I feel that the intracapsular method is more difficult, especially for the older surgeons who have not been used to it from the very beginning; but if the young assistants, learning to operate today, begin immediately with the intracapsular method, they will be successful and in years to come will report better results. There is no question that the extracapsular method in proper hands gives good results, and every one of us knows that with years of practice our own results improved. I figure that if I were a young man today, beginning my career, I would force myself to get used to the intracapsular method in spite of the more difficult technic.

Dr. Willard G. Mengel: It was my privilege recently to go over 109 histories of operations performed in our clinic during 1931, and probably running along over a period of 5-6 years. Among this large number of cases I dare say that our results were uniformly good, so good that it certainly justifies continuance of the extracapsular method of extraction.

We had a very small percentage of vitreous loss and prolapse of the pillars, and a small number of cases showing postoperative iridocyclitis.

It is our custom to follow the technic in a general way as described by Dr. Shipman in his paper, with the exception of keeping the speculum in place a little longer, and not using the Smith hook as early. We use counter-pressure quite frequently. We have done some intracapsular operations, of course, but are not as expert with these as with the extracapsular, and our results because of lack of skill probably have not been as excellent. I have noticed following the intracapsular operations, that the anterior chamber is distinctly more shallow than following the extracapsular operation. With the intracapsular operation, removal of the posterior capsule with the lens takes away support for the vitreous. The vitreous comes forward, and the anterior chamber is more shallow after the operation.

It seems to me that during the operation, with this lost support by the removal of the posterior capsule, there will be more chance of vitreous loss and complication. Therefore I feel that the more conservative method of extracapsular operation should be the method of choice for a time, either with or without preliminary iridectomy.

Dr. McAndrews: The question of intracapsular versus extracapsular cataract extraction is not merely academic. For a patient with only one eye, the surgeon will usually perform the extracapsular operation, believing it to be a safer procedure. This shows that the intracapsular operation involves a greater risk.

A few years ago it was my pleasure to review the literature on the intracapsular operation. The majority of eye surgeons were not doing the intracapsular method although there was a decided trend to try the forceps method of intracapsular extraction. In our clinic at Jefferson, Dr. William Harrison, who recently spent a year with Dr. Barraquer in Spain, is doing the suction method with good results. In the Philadelphia clinics, the method usually employed is the extracapsular.

In many of the papers written about the intracapsular operation, no slit-lamp study had been made following the operation. In a few cases, seen after the intracapsular operation, we have noticed a decided haze appear on the surface of the vitreous which cuts down visual acuity. Needling operations were of no avail. Whether this haze was due to loss of vitreous support, I do not know but I believe that slit-lamp studies should be made after all intracapsular operations.

Some European surgeons are not affected by vitreous loss. In America loss of vitreous usually means a lost eye. I do not believe that the intracapsular operation will become the accepted operation of the future, even though Dr. Rados advises the younger men to try it. In many cases you cannot use it. Examples: In highly myopic cases, and in patients with one eye. Here the extracapsular method is safer.

Some men believe that lens cortex causes iridocyclitis, others do not. Nevertheless, we all like to remove as much cortex as possible, believing that there is less reaction in such cases.

I have seen Dr. Baer operate occasionally and I think he and Dr. Shipman deserve to be congratulated on their excellent technic and good results.

Dr. B. E. Failing: Which is the more popular method—the 2-stage or the combined operation?

Dr. Shipman: First of all, I want to give credit where credit is due. These operations were not done by Dr. de Schweinitz; they were done by Dr. Baer, and I only acted as an assistant. I wanted to compare the results of men of comparable skill. I did not want to compare my results (with the extracapsular operation) with those of Dr. Knapp, but I think that Dr. Baer is comparable to Dr. Arnold Knapp, of New York, and that is the reason I compared these results with those of Dr. Knapp. Another reason for mentioning Dr. Knapp is that he has written more about it and done more to create the interest in intracapsular operation, certainly in this country, than any other one man.

In regard to iridocyclitis occurring because of cortex in the anterior chamber, that is true in a great many cases. They are hypersensitive to cortex, and now, according to Berky, you can find out which patients are going to be sensitive to lens cortex, before you operate, and you can desensitize them to that cortex, thereby entirely eliminating that feature. That is a possibility.

In regard to preliminary iridectomies, that plan was followed in 46% of these cases. It was my intention at first to compare the results as to this point, but the results were so nearly the same that there was very little to compare. Dr. Baer, personally, is an advocate of the preliminary iridectomy and he does it in practically every case at the Wills Hospital. He is one of the few men who holds to that belief, and he teaches it in the Graduate School of Ophthalmology at Pennsylvania.

NEW METHOD FOR USING CANE SUGAR IN INFANT FEEDING

A Clinical Report

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Of the various sugars used as carbohydrates in the artificial feeding of infants, sucrose, or cane sugar, is generally conceded to be the most satisfactory for the average baby. Much has been written about the advantages of this convenient disaccharide, but there have been practically no discussions of the best form in which it may be employed.

For 14 years before discontinuing this work, Dr. Arthur W. Bingham, of East Orange, had been using with great success formulas in which the sucrose was supplied by condensed milk, a processed blend of whole-milk and cane sugar. This product has, of course, been extensively utilized in infant feeding for many years, and clinical studies on it have recently been reported by De Sanctis and Craig, but only lately have its unique possibilities as a carbohydrate been realized. This paper outlines the results of an extensive clinical investigation of mixtures of cow's milk, condensed milk, and water for artificial infant feeding.

METHOD OF STUDY

In a clinical study extending over the past 3 years, 343 young infants have been given suitable formulas of cow's milk and water, with condensed milk added as the carbohydrate, and of these infants, comprising both private and feeding-station patients, 96 were started at birth and 146 at 3-6 weeks of age; the number put on the formula after 6 weeks being 101, and the average age when the formula was discontinued being about 7 months.

In order to furnish from 50 to 55 calories per pound of body weight for the average well-developed infant under 4 months of age; from 55 to 65 calories for small babies; and from 40 to 50 calories for the normal infant over 4 months of age, the following method of feeding was adopted.

During the first 3 or 4 days of life, 1 dram

of condensed milk was diluted with 3 oz. of boiled water and given every 3 hr.; from the fourth to tenth day, 2 drams of condensed milk with 3 oz. of water, and fed every 3 hr.; after the tenth day, the whole day's feedings were prepared by mixing 2-3 oz. of whole cow's milk in 20 oz. boiled water and adding 2 oz. of condensed milk, and this divided into 7 bottles was fed at 3 hr. intervals. The cow's milk is increased from $\frac{1}{2}$ -1 oz. every other day, depending upon requirements of the infant; with, of course, a corresponding decrease in the amount of water. By the time the average baby has reached 3 months of age, the formula will comprise 18 oz. of whole milk, 18 oz. water, and 2 oz. condensed milk; the amount of condensed milk remaining constant.

Such a formula has 2.66% fat; 2.59% protein; and 6.94% carbohydrate; and yields 19 calories per fluid ounce. It provides approximately 45 calories per pound of body weight for a 12 lb. baby when given in 6 feedings during the 24 hours.

COMPOSITION OF FORMULAS

An examination of the chemical composition of condensed milk reveals the reason this form of concentrated milk makes such a satisfactory carbohydrate. The analysis is as follows:

Fat	9.00%
Protein	8.11
Lactose	11.54
Sucrose	42.00
Ash	1.92
Water	27.43
	<hr/>
	100.00%

Condensed milk yields 126 calories to the fluid ounce.

When used in conjunction with cow's milk and water, a mixture is obtained which is easily digested, well tolerated by most infants, and contains fat, protein, carbohydrates and minerals in proportions similar to those in breast milk. According to Brennemann: "It has long been known that condensed milk probably occupies a place next to breast milk as the most universally easily digested infant food."

This superior digestibility is due to the

method of manufacture, in which carefully produced and tested whole milk is quickly heated for a few moments, after which pure cane sugar is added. The mixture is then condensed in a huge vacuum pan at a temperature of 145° F. until 2½ parts of the whole mixture have been reduced by evaporation of the normal water content to 1 part of sweetened condensed milk. After cooling the product is placed in sterile tin containers. In this process there is apparently some molecular change in the nature of the sugar, as well as a definite breaking up of the fat and protein of the milk; the vitamins present in the milk are virtually unimpaired, although there may be some slight reduction in vitamin C. In all of the cases reported the customary antiscorbutics and antirachitics were administered.

The following table shows the composition of a number of selected combinations of milk, water, and condensed milk.

TABLE I

Dilution	Fat	Protein	Carbohydrate	Calories per ounce
Condensed milk... 1.5 oz.	2.47	2.41	6.08	17.15
Water .....12.0 "				
Whole milk ....16 "				
Condensed milk... 1.5 "	2.59	2.55	5.94	17.47
Water .....12 "				
Whole milk ....20 "				
Condensed milk... 2 "	2.64	2.57	7.01	18.99
Water .....12 "				
Whole milk ....17 "				
Condensed milk... 2 "	2.74	2.67	6.76	19.09
Water .....12 "				
Whole milk ....21 "				
Condensed milk... 2.5 "	2.79	2.70	7.83	20.67
Water .....12 "				
Whole milk ....18 "				
Condensed milk... 2.5 "	3.18	3.09	8.64	23.32
Water .....8 "				
Whole milk20 "				

RESULTS

Of the 343 infants, all except 1, who was intolerant to sugar, did exceptionally well. There were only 8 mild cases of infantile eczema, of which 2 were definitely sensitive to milk. There was no fat indigestion, very little vomiting, and stools were as normal as in cases where other sugars were used. There was about the average degree of constipation,

which was usually controlled by an increase in the amount of condensed milk.

Of these infants, 35 were changed from other sugars—such as lactose, dextrins and maltose, and corn syrup—to the condensed milk mixtures, with consequent improvement. In all, a weak mixture was employed at first and gradually increased to the proper caloric requirement. Diarrhea, in 5 infants, caused the use of powdered protein milk (Merrell-Soule) for a time, but later they were given the condensed milk mixture with good results.

Among 110 patients followed closely for 1 yr., there were 2 cases of otitis media, 2 of eczema, 3 of pyuria, and 6 of mild clinical rickets. Upper respiratory infections were few, and there were no mastoid or pneumonia complications and no secondary anemias.

In all instances, teeth erupted normally and muscular development was good. The average gain in weight during the first 6 months was 6.8 oz. a week.

At ages between 4 and 6 months, 50 of these infants were gradually taken off the milk, water, and condensed milk formulas and other carbohydrates, such as lactose or dextrimaltose, were substituted, without any appreciable difference in the rate of gain. Most of them were put on a whole milk formula between the sixth and eighth months, and vegetables and cereals were added routinely to the diet at the fifth or sixth month.

COMMENT

Many babies who must be artificially fed are started on condensed milk and water during the first few days of life, because of the easy digestibility and high caloric value of this mixture. Because of a somewhat unwarranted prejudice against long-continued use of this product, such babies are often abruptly changed to other formulas, with other types of sugars. A far more efficacious procedure would be to continue the condensed milk feeding but with the addition of a high grade fluid whole milk, either certified or pasteurized. The milk, water, and condensed milk formula can be boiled, as is customary with most mixtures for young babies.

The use of condensed milk as a carbohydrate can be continued to advantage until the

sixth month when solid foods are added and a gradual transition may be made to whole milk formulas.

In addition to the superior digestibility and ease of assimilation of this type of sugar, it possesses the quality of purity. Condensed milk is a safe and clean product, low in bacteria, and subjected to a careful heat treatment which improves it chemically and physically without detriment to its biologic attributes.

DISCUSSION

Dr. A. W. Bingham (East Orange): It may seem odd for an obstetrician to discuss a paper on infant feeding, but it was formerly the custom for the obstetrician to feed the new infant for at least a few months, and I discontinued this work only a few years ago. I am especially interested in one phase of this paper—the use of condensed milk in place of sugar. After using the ordinary mixtures for 15 yr., they were practically discarded in favor of mixtures containing condensed milk in place of the usual sugars and this formula was developed after watching the behavior of a large number of infants. It was noticed that babies fed on a condensed milk and water mixture, as a supplementary formula in the hospital, did very well. When the infant went home this formula was changed to one of the ordinary milk mixtures, and most of the babies became colicky. The question arose—why not leave the baby on the condensed milk and water mixture and gradually add more milk to the formula? It was tried and the babies were found to be much happier and they thrived in practically every instance. So, the mixture was continued with the addition of more and more milk every day for 3-4 months by which time the baby had become accustomed to a strong milk formula. The condensed milk was then omitted and some other form of sugar supplied. Premature babies thrive especially well on this method of feeding.

Having given up the feeding of infants, and as no one seemed interested in the method, it was expected that the formula would be discontinued. However, mothers who had used it once insisted on using it again on their new babies, and Dr. Evans was asked if he wished to try it out. You have heard his report and I believe it is well worth your serious consideration.

Dr. William London (Perth Amboy): When I was at the New York Nursery and Child's Hospital, in 1919, it was our routine practice to feed all premature babies for whom we were unable to obtain breast milk, with 2 oz. of condensed milk and 18 oz. of water, giving the quantity that would provide a sufficient number of calories for their needs. Our results were uniformly good, that is, compared with the results at other institutions in the city. It has been my practice since then to use this mixture and the babies do almost as well as when we obtain breast milk.

I have also found another use for sweetened condensed milk which, to my mind, is of great value, and that is in the treatment of putrefactive diarrheas. We often see such patients who do not improve with protein milk or lactic acid milk mixtures, but if put on a sweetened condensed milk mixture do well almost from the first feeding.

Dr. Frank C. Johnson (New Brunswick): I would like to voice my opinions about condensed milk in general. I think we must all accept Dr. Bingham's experience. I hold the same opinion as Dr. Holt—a condensed milk salesman would have in my office as much chance as the proverbial snowball, for it has provoked me that the condensed milk people should put out a tin can for feeding babies. Whether the observations of Dr. Holt were correct or not, I do not know. Many of the factors which produced rickets and scurvy undoubtedly have been abolished as our babies are now fed orange juice and cod-liver oil, practically without exception. The danger of lack of vitamins has passed, probably, but I still think that the milk companies should not sell to the public formulas for feeding infants. So long as the tin can carries the milk and the formulas, it seems to me there is a danger which we should in some way eradicate.

Dr. A. W. Bingham (East Orange): Of course, we are not feeding babies condensed milk and water; we are only advocating sweetened condensed milk, in the place of sugar, with milk and water. We do not believe in formulas on the can. I was brought up to have a horror for condensed milk but have learned from experience that condensed milk used in formulas in place of sugar agrees with the young baby much better than any other sugar I have ever tried.

Dr. D. J. M. Miller (Atlantic City): Infant feeding moves in cycles. I graduated in 1878 and at that time condensed milk was the feeding for babies *par excellence*. The late John F. Meigs, of Philadelphia, a famous children's doctor, was the first one, I think, who began to condemn the use of condensed milk. Nevertheless, babies were brought up on sweetened condensed milk and water. Perhaps we did not recognize it then, but on looking back, there was apparently not much scurvy, as we now know scurvy, at least, and I am not sure that rickets was any more common than it is today, notwithstanding the omission of cod-liver oil and sunlight. One reason, I think, for pediatricians opposing the use of condensed milk was the fact that it was a *proprietary preparation*. I have still a prejudice against the use of preserved foods. I cannot see any advantage in using a preserved milk. The majority of babies can be fed on ordinary milk dilutions and the various forms of sugar. Babies differ as to tolerance of sugars, but I think the best sugar to use, after all, is the ordinary cane sugar.

Dr. F. I. Krauss (Chatham): It seems to me that in the use of all these various sugars success depends on the man using the tools with which he is accustomed to work. I like to put a series of children on milk-sugar mixtures, another series on granulated sugar, another on dextrose, and perhaps some on a proprietary preparation. My opinion is that—with all these mixtures—success will depend on starting with small quantities. I think that was the secret of Dr. Bingham's success. Our failures in the first few weeks of life are due to the fact that we start with modified cow's milk mixtures which are too strong. Very few children can comfortably digest whole milk before they are 10-12 months of age. Starting with a very weak modified condensed milk, the baby is getting sufficient carbohydrate, and is getting a milk that is broken down chemically. That is the secret of these children getting along so nicely in the first few weeks of life with condensed milk.

The same thing would be true if we started with any powdered milk preparation in small quantities. The kind of sugar is not so important as the manner in which it is handled. You will notice that Dr. Bingham emphasized the fact that he does not continue these children very long on condensed milk alone. There, of course, would be the great danger. Mothers sometimes continue with condensed milk of their own volition. As you know, I see many babies after they have left your care and they are being given condensed milk without any medical supervision. They have been on it too long and there is a chronic deficiency. The mothers read the advertising circulars, attempt to follow those directions, and their babies are not fat but are flabby and without the vitality which they should have. That is the inherent danger of leaving it up to the public to go ahead with a proprietary food.

Dr. F. W. Lathrop, (Plainfield): One of the things I noticed in Dr. Evans' remarks was—changing the formula every few days. That indicates, I suppose, rather close supervision of the baby, and that is undoubtedly one of the reasons for the success that he reported; his close supervision of the feeding during that first year. With careful direction and constant supervision, we may expect our patients to do as well as his have done.

Dr. Evans (closing): It is very unfortunate that many of the modifiers that we use in infant feeding have the directions on the container. So far as I know, there are no directions on the condensed milk container referring to use of the product as a modifier, and that is the only use I am making of it.

In this paper you will see that *I have used it as a sugar*, in conjunction with fresh cow's milk and water. I feel that this method of feeding agrees with a premature baby as well as any food I have ever used excepting, of course, mother's milk. I have fed about 45 premature babies in this manner. It is necessary to be more careful not to add cow's milk too rapidly, but if you add it slowly they will tolerate it very well. My method has been to direct the mother to increase the cow's milk $\frac{1}{2}$ oz. every 2 or 3 days, depending upon the requirements of that infant.

CONGENITAL ATRESIA OF THE UPPER END OF THE ESOPHAGUS WITH TRACHEO-ESOPHAGEAL FISTULA

Report of a Case

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Case history. A male baby, white, weighing 5 lb. and 5 oz., was born in the Orange Memorial Hospital, March 4, 1931, on Dr. Raymond Potter's service; a first baby, at full term, and delivery normal. During the first 48 hr. a frothy, bloody mucus came from the mouth and nose, and many coarse râles

could be heard over the chest. The temperature was normal. He was not taking fluids well and attempts to feed him seemed useless. He became cyanotic at times and a slight jaundice of the eyes appeared. Urine and meconium were passed freely. On the third day, the possibility of an obstruction in the esophagus was suspected and he was sent to the x-ray department for examination.

Roentgen ray findings. Through a small, soft rubber catheter in the nose a small amount of thin barium-milk mixture was introduced. An x-ray picture, taken before the barium was introduced, showed an aspiration pneumonia in both upper lobes and some dilatation in the region of the esophagus down to the level of the third dorsal vertebra, the shadow of what proved to be the level of a tracheo-esophageal fistula. The second picture, taken after the barium had been introduced, showed that it reached the level of the third dorsal vertebra and that a small amount had been aspirated into the lungs. A third radiograph, taken 15 minutes later, showed that further aspiration of the barium had occurred, and in the fourth it could be seen that a small amount of the barium had passed into the stomach. A diagnosis of congenital atresia in the upper third of the esophagus, with a tracheo-esophageal fistula, was made; the lower $\frac{2}{3}$ of the esophagus was normal.

On March 13, further examination of the lungs was made after autopsy. A catheter was passed through the esophagus from below upward and a small amount of lipiodol was injected through it. In these films the esophagus below the tracheo-esophageal fistula was entirely intact and the junction of the esophagus and trachea was very well defined. The barium which had been aspirated into the bronchial trees of both lungs in the previous examinations had been expelled.

As soon as the diagnosis was established, the question of operation was considered but not attempted, and death occurred from inanition and aspiration pneumonia on March 13.

Autopsy. The postmortem examination by Dr. Arthur R. Abel was recorded as follows: "The trachea divides at the usual level into

bronchi of normal size and conformation. About 12 cm. above the bifurcation, the esophagus enters the trachea through its posterior wall. The esophagus, up to the point of union with the trachea, appears to be normal in size, but above that point is represented by a thin, solid strand of tissue extending up the posterior wall of the trachea to the level of the cricoid cartilage, where it joins a small sac which is blind. This small sac is closely applied to the larynx posteriorly and represents the upper portion of the esophagus. The larynx had a normal conformation. Both lungs showed areas of bronchopneumonia, especially the right lower lobe. The heart was normal in size and conformation, there being no evidences of a persistent ductus arteriosus. The other organs were normal in every respect."

Embryologic considerations. The esophagus, trachea and larynx are developed as an outgrowth from the entodermal alimentary canal. The first step in development of the pulmonary system is a pouching of the ventral wall of the esophagus through its entire length. This ventral wall or groove deepens until its edges finally meet and fuse. In this manner, the groove becomes a tube which, beginning at the gastric end and extending toward the pharynx, is separated from the esophagus. This separation is not complete, however, until a bifurcation takes place, which is the pulmonary portion below; the tube above does not as yet separate. At first, the evagination consists of entoderm but it later fuses with mesoderm. The epithelial linking in the air passages springs from entoderm, while the basic structures spring from mesoderm. The trachea is the elongated stalk of the pulmonary system. At an early period 2 dorsoventral ridges appear at the junction of the trachea with the esophagus, and, according to Kreuter, Krauss and Mall, interference of the mesoderm with entoderm at this site would explain these abnormalities.

Classification. Congenital malformations of the esophagus have been classified by Whipham and Fagge as follows:

(1) Congenital absence of the entire esophagus, a very rare condition.

(2) Bifurcation of the esophagus with junction of the 2 portions near the lower end; only 1 case reported.

(3) This group embraces 2 types: (a) Congenital atresia, in which the esophagus is divided into 2 parts; the type most commonly found. The upper end terminates blindly in a cul-de-sac. The lower end opens above into the trachea or one of the bronchi, and below in a normal manner into the stomach. The 2 segments are connected by a fibrous or muscular cord. (b) Much more rarely there is no opening of the lower part into the air passages, the 2 blind ends merely joined by a fibrous band.

(4) Stricture caused by a fold of the mucous membrane projecting into the lumen of the tube like a diaphragm (a) at the upper part of the esophagus immediately below the pharynx and (b) near the lower end.

(5) Congenital stenosis of the lower end of the esophagus.

This case belongs, therefore, to the first division of the third class.

Literature. A survey of the literature up to March 1930 reveals that 232 cases of congenital atresia of the esophagus have been recorded; which makes this case number 233. The first case recorded in the literature appears to have been dated in 1696. A study of these records shows that in about 70% of the specimens, the upper portion of the esophagus ended in a more or less dilated cul-de-sac and the lower portion of it in the stomach normally. The tracheal fistulas occurred in the region of the bifurcation of the main bronchi. In the earlier cases, the diagnosis was not made until autopsy, but in most of the later cases the clinical findings have suggested the possibility of lesions in the esophagus and, being promptly submitted for x-ray examination, the diagnosis was easily established.

DISCUSSION

Dr. William G. Herrman (Asbury Park): I would like to speak about a similar case. This condition is interesting mainly as a matter of diagnosis and one of the important types to us, outside of our interest in anomalies, is the incomplete type, that which I believe Dr. Reitter called class 4, where you have a stenosis or incomplete atresia. I did not see this child until he was 4 months old and with a history of vomiting and regurgitation ever since birth. He had been treated by a number

of physicians who thought it was a feeding problem. Then he was sent up for x-ray examination to see whether he had an enlarged thymus, which he did not have. Then, in spite of certain data lacking in the history, he was sent up on the question of pyloric stenosis. We found a stenosis of the esophagus occupying a middle third with considerable dilatation of the upper portion of the esophagus and below the stenosis a normal esophagus, with a normal cardiac orifice.

The case was important from the standpoint of diagnosis since that youngster was not in a hopeless condition. The sooner the cause of vomiting is discovered, the better off is the child. I think we cannot emphasize too strongly the importance of x-ray examination of infants for possible malformations as the cause of vomiting, even though in many cases it does seem to be purely a feeding proposition.

Dr. R. Pomeranz (Newark): I have recently seen a similar case of congenital atresia demonstrated by x-rays, where the infant had an esophageal blockage at the level of the fifth dorsal vertebra and, by regurgitation, the barium entered the lungs.

RETROBULBAR NEURITIS SECONDARY TO POSTERIOR ETHMOID AND SPHENOID SINUS DISEASE

JAMES A. FISHER, M.D.,
and

R. WINFIELD BAESEMAN, M.D.,
Asbury Park, N. J.

Much has been written as to the relative frequency of optic neuritis caused by sinus disease, and still percentages vary to a considerable degree with each writer.

Herzog found definite sinusitis in 10 of 28 patients: Meller, 4.5% which he considered to be rhinogenic, among patients observed in Vienna during a period of 2 years. Early in the experience of White, a very high percentage of cases were thought to be caused by sinusitis but more recently he has reversed his opinion and considers that only a small number can properly be so classed. According to Gifford: "Of 13 patients seen by myself and associates during the past 2 years, multiple sclerosis was considered to account for 3 and purulent sinusitis for 4. Reasoning that if optic neuritis is frequently caused by sinusitis, it would seem that retrobulbar neuritis should develop in a fair proportion of cases of sinusitis." A number of observers have examined patients with sinusitis for signs

of involvement of the optic nerve, such as enlargement of the blind spot and central scotoma. Markbreiter found that 70% of a series showed defects of the fields. Bordley found enlarged blind spots in 31 of 102 examined. While most of these defects disappear as the acute sinusitis clears up, some nerves remain permanently damaged, and this explains, perhaps, a certain number of cases in which unexplained optic atrophy is discovered later.

We present this subject at this meeting because we believe that the cases here reported are proved instances of optic neuritis of sinus origin. The history in each case is very positively of recent and previous attacks of sinusitis.

Before citing these case histories, a short review of the anatomy of the relevant area may refresh our memories.

The medial wall of the orbit is generally related to the sphenoid sinus and always related to the ethmoidal cells, which later may extend over the roof or beneath the medial edge of the floor, or replace the sphenoid sinus in position. The posterior ethmoidal cells, unlike the anterior and middle groups, open into the superior meatus above the middle concha. One or more cells may present important relations to the optic canal. In some instances, the roof of the canal is hollowed out by an extension of the sphenoidal sinus, indeed, according to Howell Evans: "This optic projection of the sinus into the lesser wing or clinoid process of the sphenoid bone occurs as often as 1 in 3." Onodi, in 1903, classified 38 different forms and 12 groups of relations of these air spaces to the optic canal, which indicates the great variation that may occur in their arrangement. The most important fact in regard to these relations is the delicacy of the bony wall which separates the optic canal from the neighboring air spaces, especially when this is formed by an ethmoidal cell.

There have been cases reported where there were dehiscences so that the optic nerve in its sheath was in direct contact with the mucous membrane lining the sinus.

All the posterior ethmoidal cells have in their venous system branches which pass into

the orbit and thence through the ophthalmic veins to the cavernous blood sinus. Some of their lymph channels possibly take the same course, but this is not certain. The lining membrane of the sinuses is so closely blended with the periosteum that it has been called "muco periosteum", a fact which explains how readily disease can spread into and even through them.

Dunphy, reviewing the literature on this subject, states: "There is a definite tendency toward recovery of retrobulbar neuritis of sinus origin, although in some cases sight is irreparably damaged."

Van der Hoeve suggests 3 ways in which the disease may affect the optic nerve: (1) Direct spread of inflammation. (2) Pressure due to the distended walls of the sinus. (3) Irritating influence of toxins, causing edema and stasis.

The late Leon White worked extensively on this subject and believed that in all cases of retrobulbar neuritis the posterior ethmoids and sphenoids should be aerated, even though the roentgenograms were negative; holding that negative pressure, owing to poor ventilation and drainage, favored the migration of bacteria and toxins from the blood stream to the optic nerve.

Small optic canals may be the reason for permanent visual defects remaining sometimes after the acute attack has subsided. Where operations have been performed, all credit for the cure must not be given to surgery, as recovery in 85% of cases has been spontaneous.

Care must be taken to exclude, where possible, multiple sclerosis, Leber's disease, etc., before attempting surgical treatment, but once the diagnosis is established, we firmly believe that the patient should receive the benefit of drainage by someone skilled enough to do a proper ethmoid exenteration and provide adequate aeration of the sphenoid. The late Ross H. Skillern said: "Should I be stricken with sudden blindness, the first thing I should wish done, would be to open the ethmoids and sphenoids."

The following 2 cases, together with the perimetric charts, illustrate what we believe

to be 2 proved cases of optic neuritis due to sinus involvement.

Case 1. Grace W., age 12½ years, consulted us on March 16, 1931, with the following history. She had first noticed a blurred vision, characterized as a yellow haziness, when returning home from school 8 days previous.

She had a sty on the left upper lid 3 months previously and a severe head cold in February, with intermittent pain over the left frontal region, lasting several weeks.

Radiographs taken on February 15 disclosed an infected antrum, which was opened intranasally. The maxillary infection had entirely cleared at the time of her first visit to our office.

Examination at this time disclosed the following: Vision O. D.=20/20; O. S.=Light only. Normal media. Fundus entirely negative, with the exception of slight congestion over the left disc. Consensual reflexes present.

Fields of the right eye were entirely negative; of the left, not obtainable. Nasal examination and sinus transillumination disclosed the left frontal slightly cloudy and both antrums equally brilliant. Purulent exudate beneath the left middle turbinate, and a mucopurulent exudate at the opening of the sphenoid; were found after extreme shrinkage.

On March 18, a Mosher ethmoid exenteration operation, together with removal of anterior sphenoid wall, was performed under local anesthesia. No packing was inserted. On March 23, light reflexes were present in the left eye and she was able to see form and motion.

Gradual improvement took place until May 16, when her vision had returned to 20/30.

We were unable to follow all of the perimetric estimations we would have liked, for she was the patient of a colleague in a neighboring town. However, we asked to have her return on March 5, 1932, for field and blind-spot estimation, which was practically normal in all respects.

Case 2. Robert R., aged 24, architect, first consulted us on March 5, 1931, at which time he had an acute attack of maxillary sinusitis. The left antrum was punctured and irrigated.

Considerable mucopurulent discharge was recovered. The right antrum also contained a small amount of secretion, but it had entirely recovered after 3 irrigations. The left, however, required 7 treatments to effect a cure, the patient being discharged April 8, 1931.

During the course of his maxillary sinus condition, he was refracted, on March 23, and corrected to normal vision in both eyes, with a +1.50 Ds. in each eye. He remained perfectly free of trouble until November 20, 1931, when he returned complaining that for the past few days vision in the left eye had been hazy at times and finally on the previous day, he had entirely lost his vision in that eye.

Examination disclosed the following: Vision O. D.=Normal. O. S.=Limited to shadow movements only. The fundus was entirely negative, except for a rather large physiologic cupping of the disc, which was also present in March 1931. The pupils were equal but the left did not react to light and the consensual reflex from left to right was lost.

At this time, his maxillary and frontal sinuses were clear on transillumination but the nasal mucous membrane was greatly congested. No free pus was found beneath the middle turbinate.

His teeth seemed quite normal, but his tonsils were quite markedly diseased.

We advised a Wassermann check-up, radiograph of sinuses, sella turcica and optic foramen, and a search for evidence of increased intracranial pressure; although the discs disclosed no evidence thereof. A complete neurologic examination was also advised.

The optic foramen and sella were quite normal but there was some haziness of the posterior ethmoids on the left side, and as there had been no improvement in his vision since November 23, a radical operation on the left ethmoid and sphenoid cells was performed according to the method of Mosher, which we believe gives the most complete exposure of this region and a better guarantee of thorough opening of the entire area.

November 27, 1931, there was a slight improvement in vision of the left eye; he being able to see somewhat better in the temporal field.

On December 8, a thorough neurologic

check-up was made by Dr. Pietri, whose summation of the case was as follows: "I feel that a diagnosis of multiple sclerosis is untenable at this time, but the patient should be watched periodically in order more definitely to rule out this condition."

On December 10 his vision had improved to 6/60 and both pupils reacted to light. On December 15 his vision was 6/30, showing some pallor in the temporal portion of the disc. December 23, vision was 6/22. December 29, it was 6/12. January 19, 1932, vision was 6/12+2.

During the course of treatment, his fields were taken repeatedly, his blindspots outlined, and the scotoma examined. (These were shown on the screen, together with some slides depicting the anatomy of that region.)

DISCUSSION

Dr. Samuel T. Hubbard (Hackensack): As Dr. Fisher has called to our attention, the anatomist has proved a close connection between the emissary veins and the optic nerve. He has demonstrated the thinness of the sinus walls; even, at times, their absence. He has demonstrated the close proximity of the optic nerve to these accessory sinuses. So far as the anatomist goes, it would seem that we have rather clear sailing in making a diagnosis and instituting treatment.

The pathologist has proved thrombosis of the emissary veins and involvement of the vessels of the optic nerve, and has shown osteoplastic and osteoclastic processes in the sinus walls.

The radiologist has given positive evidence of involvement of the sinuses, but cannot always go farther and give indication of involvement of the optic nerve.

Unfortunately, in considering any particular patient, we cannot call in the anatomist, the pathologist, or the radiologist, and the rhinologist cannot always say, with positiveness, that the sinus is involved and is the cause of the retrobulbar neuritis, so, as the ophthalmologist has absolutely no sign by which he can say that the sinus is to blame, we have to fall back on clinical evidence.

Certain clinicians have reported a series of cases in which the vision has improved immediately and completely after an exenteration of the sinuses or after the discharge of serosanguineous fluid and pus from the nose; even after shrinking of the nasal mucous membrane or simple probing of the sinuses. This class of clinicians feels that operation is perfectly justifiable. Unfortunately, for clear sailing and our peace of mind, another class of clinicians reports cases, as high as 85%, in which spontaneous cure has taken place without operation. It also reports cases in which multiple sclerosis has developed months or years after the optic neuritis. It feels that operation is not justified.

Personally, therefore, I believe that the problem comes back to this—whether or not we would ever be justified in operating for relief of retrobulbar neuritis.

Undoubtedly each case is a problem in itself

and a complete and thorough examination, of course, should be made. As early a diagnosis as possible should be made and appropriate treatment instituted.

I am inclined to agree with Dr. Fisher that in those cases where the diagnosis is reasonably certain or in which a positive diagnosis cannot be made, operation is justified.

Dr. Elbert S. Sherman (Newark): Dr. Fisher has brought up a subject in which we are all interested. Nasal infection as a cause of visual impairment has been recognized for over a hundred years, but nothing has been done about it until the last 20 or 25 years.

I suppose Onodi's anatomic demonstrations have aroused more interest in the subject than anything else in this century. The diagnosis of retrobulbar neuritis is entirely functional in a great many cases. Very often little or no fundus change can be seen for quite a while.

One of Onodi's assistants stated several years ago that in 70% of the cases of sinus infection there was enlargement of the blindspot. This, I think, is not often looked for. Of course, it is somewhat indefinite, but it is suggestive. We all know that most cases of acute sinus trouble clear up often without treatment or with simple nasal medication.

Retrobulbar neuritis from sinus infection is, for anatomic reason, nearly always unilateral. Many cases, probably most of them, clear up with simple, non-surgical intranasal treatment. Occasionally we see a case such as one I have in mind now in which we must decide very promptly what is to be done in order to avoid serious loss of vision.

Some time ago a young girl came to me complaining of a little blur of one eye. Her vision was reduced to 20/30. There was a slight fuzziness of the disc. She had had a recent head cold. Her vision decreased very rapidly. In 3 or 4 days it was down to 20/100, and a day or two later it was reduced to hand movements. The other eye was normal. An examination of the nose, made by a very good rhinologist, was, excepting a moderate enlargement of the turbinates, practically negative. There was no pus in the nose. The roentgenologist's report was indefinite.

Feeling that something must be done immediately, and other possible causes being eliminated, I practically insisted upon having her posterior ethmoids and sphenoid on the affected side, opened. This was done, and the improvement in the vision was startling. She could see almost nothing be-

fore, and in a few hours she could count fingers, and in less than a week her vision was normal.

In the face of the negative x-ray report, and a negative rhinologist's report, it sometimes requires a little courage to go ahead and insist upon an operation.

X-ray examinations for sinus disease, as Dr. Ross Skillern told us several years ago, are very misleading. You cannot depend on them in a great many cases. I think it was DeGrosse, when he was here 3 or 4 years ago before the American Academy of Ophthalmology and Laryngology, who said that after a very large experience the most common cause of acute retrobulbar neuritis is sinus infections, and next is multiple sclerosis.

Dr. Samuel T. Hubbard: I remember reading an article in the Archives of Otolaryngology by Dr. Vail, Jr., in which he calls attention to the fact that the first association of retrobulbar neuritis and sinusitis was in the eleventh century, at an autopsy, showing that it has been recognized for a long time.

Dr. Andrew Rados: These clinical points have been long but not widely known. About 22 yr. ago many papers were published, especially by Paunz, an excellent rhinologist, who had a large series of cases, and described the symptomatology clearly. We know that as a first characteristic these cases are usually unilateral. Bilateral cases are rare. Therefore, in making the diagnosis, the first thing that we have to consider is the unilateral appearance of the disease. The diagnosis itself is very easy because usually we have an absolutely normal eye-ground, and a very sudden onset of the disease.

There is one old clinical sign which was described very often, and that is painfulness upon pushing the eyeball back. This symptom is usually missing in multiple sclerosis. Naturally, whether, in a given case, we have multiple sclerosis or retrobulbar neuritis to treat, is sometimes very hard to say, especially in children. The rhinogenic retrobulbar neuritis heals up without operation in children. In adults the prognosis is not quite as favorable, and therefore, if multiple sclerosis cannot be excluded with certainty, or the report of the rhinologist is doubtful, or the symptoms are alarming, I would rather give the benefit of the doubt to the patient, and perform the operation, because there is no question that we see cases where the cleansing out of sinuses produces almost dramatic results.

Wise is he who finds a balm for all ills, and this one, speaking in Harper's (New York) is fortunate:

ON THE SHORE

By Lindley Williams Hubbard

Here, on this abandoned beach, I could learn to forego

The beauty of cities that have done me such grievous wrong.

With the low voice of the surf always at my ears, I could relinquish song.

Hearing all night the wave breaking on rock, I could forget that I ever knew

The ill-timed laugh and the inconsequent word
And all the importunate crew

Of the wise and the sick of heat. Here in this place,

Seeing at morning the green wave crested with white,

I would unlearn the barren wisdom of cities,
Lest it undo me quite.

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POST-GRADUATE COURSES

The State Society-Rutgers University Courses for this season have been announced and one of them, at least, has already started—the first lecture having been scheduled for the evening of November 1, at the N. J. State Village for Epileptics, at Skillman. Other courses and other subjects are offered, and each County Society can probably find available lectures suitable to the needs of its members. Our State Society Committee has made a remarkable record during the past 3 years, in the courses set up and the number of subscribers secured. Furthermore, each year's program has been an improvement upon its predecessor, and each successive year has witnessed an increased membership enrollment.

Your continuing support of this Committee's work is hoped for, and you are especially requested to aid the movement this year. The far-reaching effects of the "depression" are felt even in this matter. The State appropriation to Rutgers was reduced by the Legislature last winter and, as a consequence, the University is unable at present to aid us to the same extent as last year. It will be necessary for us this time to cover the cost of suitable places for the lectures, janitor's service if required, lantern and operator when illustrations are to be shown, etc. In effect, this means that for this season we return, practically, to the conditions and the cost price of the first year of these courses. It is hoped this will be only a temporary setback and that in the next year we will have caught up again with the advanced position we had attained

in 1931. Meanwhile, we trust that each member of this Society will do everything in his power to maintain and support this very excellent piece of educational work. It is, in fact, unique in the history of post-graduate medical study, and this Society wants to hold its leadership in this matter.

We have heard that some of our members think these courses could be given by teachers selected from our own membership list, and at a lower price to subscribers—and in this last phrase there was the intimation that the fees paid to lecturers were excessive and that the part played by the University could have been handled by the Society. The Editor is glad to have the opportunity to answer these questions. The original plan for this venture contemplated that method of securing lecturers and the Editor persisted in its advocacy until it was proved beyond any reasonable doubt—impractical; it is one of those things beautiful in theory but unworkable in actual practice. So it is with regard to the services rendered by Rutgers. Selling these courses of instruction, like selling anything else, requires a certain amount of machinery and knowledge of its use. The University has that machinery, and has the salesmen who know how to use it effectively; the Society has not. The Editor was fully convinced, before the first course was actually started, that on those points he had been wrong; and he is now willing to go farther and say that an attempt to operate independently, and with local teachers, would wreck the whole affair.

Give your aid, as fully as possible, to the

plan which the State Society Committee has so satisfactorily and successfully developed.

MESSAGE TO SCHOOL PHYSICIANS

In this issue of the Journal you will find a group of "original articles" prepared especially for those interested in school health problems, and we commend them to you for immediate reading because of their excellence, their tremendous importance, and their timely appearance. This year's work for school physicians has just gotten fairly under way. Utilization now, practically at the beginning of the season's work program, of some of the recommendations in these papers will lighten your own task, promote a desired harmonious action throughout the state of New Jersey, and tend to improve upon the results obtained in previous years.

First among the articles referred to stands *the really epoch-marking contribution* by Dr. Ireland, under the title—"A School Health Program for the Physician"—which was presented at the recent Annual Meeting, in the Section of School Physicians, and received the unanimous approval of that body. This program, the only criticism of which was that—"It is, possibly, too idealistic"—is the result of several years' work on the part of its author and 1 year of constant, close, practically-perfect coöperative labor on the part of a special committee from the State Society under the chairmanship of Dr. Schauffler. For the first time in the history of our organization, we have a specific understanding between the medical profession and the school authorities: as to the character and extent of medical service to be furnished to the public schools; as to the duties and obligations attached to the position of school physician; as to the limitations upon medical service in, or in association with, the schools, so as to avoid encroachment upon the rights and privileges of the private practitioner or family physician. And, we have also for the first time a comprehensive, forward-looking program of school medical activities.

To the Field Secretary, Mrs. Taneyhill, the State Society is indebted for discovering Dr. Ireland; and, in that discovery, she did a

"good day's work". Attending a "Child Health Association" convention, held at Sayville, Long Island, in search of information relating to health work among school children, she was impressed by his deep interest in, as well as wide knowledge of, all such problems, but even more by his earnest desire and persistent efforts to secure practical application of available medical knowledge for the solution of existing school health problems. She arranged for bringing him into conference with the Executive Secretary, and out of that meeting a number of important things developed: our alliance with the State Department of Education was greatly strengthened; our public educational program has expanded, we have been enabled to place it before larger audiences than ever before; and, what is of greater import, our Field Secretary immediately established contact with *thousands upon thousands* of school children of all ages from 6 to 16 years, and all stages from the first grade of common to the advance pupils of high school—which means, teaching the future generations; our Journal secured a column contribution monthly, of matter interesting to "school physicians"—and we are told that approximately 500 of our members are to some extent engaged in school work; our Section of School Physicians was set up and has proved unexpectedly successful; and, finally, there has grown (partly out of a State Society Special Committee's coöperation with him) this ideal program of school medical work for the future. Surely a long list of benefits derived from a single chance acquaintance.

In addition to all this, we wish to direct attention to one very important virtue possessed by Dr. Ireland, and that is—*his loyalty to the family physician*. In him we have an "institution doctor" (a physician on the public's pay roll) who does not overlook, nor try to usurp the privileges and prerogatives of, the private practicing physician. Of that fact, you will find evidence in his "program" as published in this issue of the Journal (commencing on page 811). For instance, under the head of disease prevention in the schools, he says: "*The (school) physician's rôle in*

disease prevention is chiefly as an adviser, but, in that capacity, he is indispensable. The actual operation of the program falls to the teacher, the nurse, and the janitor; but, it is to the physician, the superintendent should turn for constructive help in building a prevention and control program". Again, when considering special care for defective children, he points out the fact that: "A large share of the work is medical * * * * but, by medical, it is not meant that treatment should be applied by the school physician".

In several ways, at different points in his detailed program, he draws a sharp line of distinction between the school physician and the family physician, making his policy clear as well as comprehensive; one particular instance reading as follows: "The school should undertake to inspect and examine its pupils; to investigate suspicious evidence; and, to report signs and symptoms; but *never to prescribe or administer treatment.*" Of course, first aid in emergencies would be an understood exception to this general rule, but throughout his program, and we can add that throughout our conferences with him during the past 4 years, he has never failed to recognize the dividing line between the school physician and the family physician, and he has always been prompt to insist upon observance of the rights of the latter.

PRIVATE PHYSICIANS AND COMMUNITY HEALTH PROGRAMS

A highly interesting and important paper, to be read in connection with the "School Health Program" announced by Dr. Ireland and referred to in the preceding editorial, is that by Dr. Wilkes, also published in this issue of our Journal. We commend it to your consideration for several reasons. In the first place, it deals with one of the most important economic problems of the present day. Secondly, it is consecutive, and a logical follow-up, to Ireland's discussion of the public school health problem. Thirdly, it is a clear-cut, easily understandable, and comprehensive statement concerning the private practitioner's relationship to public health programs. We have done considerable reading on this sub-

ject during the past 3 years, but have encountered few papers that equal and fewer still that excel this in the line of honest and fair consideration of this complex problem; and, it may also be said here that very few of the other articles read have contributed anything of value toward the solving of our problem.

It is the last mentioned phase of Dr. Wilkes' paper which most interested us, and to which we desire to direct your attention.

Dr. Wilkes seems to think that before we can make any material progress in dealing with present demands upon the profession it will be necessary to get rid of some preconceived notions and destroy a few frightening ghosts. Thus, regarding *state medicine*, he says: "The bugaboo of *state medicine* has never disturbed me greatly, because *this appears to be merely a demand for better organized medical service; and the demand seems to be quite reasonable and just.* I cannot see why the government should wish to assume the burden of such a stupendous task unless we of the medical profession are willing and ready to accept it. *Why should we not accept it? Who has a greater interest in improving medical service?*"

Among his suggestions for constructive work on the part of the profession is one to which we have referred on other occasions, and which has always seemed to us worthy of trial; and that is organization—re-organization if necessary—of the county medical society for the purpose of meeting the needs, and the demands, of the public for better service at lower cost, while at the same time keeping control of medical practice in our own hands and preventing that control from falling into the hands of politicians. He says: "The county medical society should organize its members for community service and thus reclaim the opportunities lost through failure to recognize and meet changing conditions and needs. The public is increasingly demanding preventive service at moderate cost, and this demand can be met by physicians, individually in private practice, and by the medical society in the community health program. Medical service to industry, schools and hos-

pitals can be contracted for by the medical society and then given by those members who are interested and best fitted for this job. Every hospital should have a 'health center' for advice as to prevention, and service. **** Organized medicine must be represented on the community health council by the local medical society. If the society has a business executive, he makes an excellent representative, for he understands organization and planning and can devote the necessary time to this project."

In this connection, we should not ignore the fact that through a working combination of county medical society and county hospitals, some communities have an excellent opportunity to solve some of the local hospital problems at the same time that we effect a solution of the profession's problems. A county society, made strong by organization of all the physicians in that area, in combination with the county hospital—or, in control of a hospital established by that society—should have a powerful influence in the community and be able easily to control the medical situation.

Read Dr. Wilkes' paper thoughtfully and with a mind open to new ideas. As he well says—*medical practice is now at a cross-road station and changes are inevitable*. Each member should be sufficiently interested to want to participate in determining what road it shall follow during the next few years. If present conditions be fully understood, and proposed remedies or changes be carefully considered, and if a course of action be deliberately decided upon by anything approaching unanimity, we should be able to guide the procedure through the channels of evolution and thus avoid possible revolution.

GUIDANCE OF SPECIALISM

Among the numerous things considered at the most recent Annual Meeting, and upon which specific action was taken, the most important, possibly, was Dr. Waters' plan for recognition and certification of specialists. During the year of Dr. Hagerty's presidency, this subject had been accorded a

thorough study and had been submitted for discussion at the Annual Conference of County Society Secretaries and Reporters, and at the Tristate Medical Conference. Later it was approved by the Welfare Committee and by the Board of Trustees, before being submitted to the House of Delegates.

Because of his deep interest in and his familiarity with every phase of this plan, the retiring President, Dr. Hagerty, was drafted into service again, to be an extra member, and Chairman, of the Special State Society Committee to establish this proposition on a working basis.

Many of our component societies hold their Annual Meetings in October, and as reports have been coming to the Journal it has been noted that in some districts this subject (specialism) has not been sufficiently well understood to justify action. In consequence, acceptance has been postponed until further consideration can be given to such an important matter.

Members desiring full information will find Waters' plan, as first presented, set forth in full, as part of the proceedings of the Tristate Medical Conference, in the Journal of March 1932, pages 252-254. Then, the same plan, with slight modifications growing out of many consultations, was republished in the Journal of July 1932, pages 591-592, as approved by the Welfare Committee. We would suggest, in relation to the first reference given above, that readers follow the additional carefully prepared contributions and discussions which continue on pages 254-263 of the March Journal.

We are informed that fear exists in some quarters, that an ulterior motive of some sort lurks "in this wood-pile", or that it is designed to give somebody an improper control over some specialists. We can assure our readers that nothing of the kind exists. The real reason for setting up such machinery inside the State and County Societies may be found in the remarks of the Editor on page 257 of the March Journal. We had not only been threatened with legislation but had made a narrow escape from having the surgical specialists brought under governmental con-

trol; a Bill with that purpose having appeared at 3 successive sessions of the General Assembly.

Next, may we explain that there is nothing compulsory about this plan, even as it is presented by the Society. The plan is to be set up and any member desiring to have his County and State Society testify to a belief in his fitness to call himself a specialist, in any branch of medicine or surgery, may ask for such recognition. That is all there is to it. If he receives the endorsement of his colleagues, county and state, he will be listed among our members as heretofore and, in addition, in some manner (a special list or a special mark) to indicate that he is a specialist with the Society's approval. We believe it is further understood that the membership list, with the specialist indications, will be made available to the public so that people may ascertain whether a given physician is a member of the State Society and whether his claim to be a specialist has received the approval of his associates.

No one is compelled or required to seek such recognition. Any regularly licensed physician has the *legal right* to pronounce himself a specialist, and no effort will be made to deprive him of that legal right. It is hoped that this plan will trip those who are, or may be, inclined to pose as specialists when they have no moral right to do so.

This plan proposes a reward for being good, rather than punishment for being bad. At the head of this editorial we have used the word—*guidance*—instead of—*control*—for the reason that it is better fitted to the intent of this procedure; and, further because the word—*control*—has been misinterpreted by some members and that may be the cause of some of the hesitancy to adopt the plan.

CHILD WELFARE PROGRAMS

In addition to the papers already discussed editorially, the Section of School Physicians furnished 2 others dealing with kindred topics and they, also, may be found in this Journal as contributed by Drs. Snedecor and Mutch-

ler. Each is worth some of your time but we shall not dilate upon either just now, because we want to call attention to some other happenings.

If complete governmental control of medical practice is scheduled to come upon us in the near future, we are inclined to think the next really important move will develop in connection with the numerous plans for safeguarding the health and general welfare of children. As a matter of fact, we have already traveled a considerable distance along that road. You are all to some extent familiar with the reported proceedings of the White House Child Welfare Conference and the New Jersey Conference on Child Health and Protection, a follow-up procedure called by Governor Larson in response to President Hoover's request for action by individual states; and, you may know what progress has been made toward full application of "The Children's Charter" in this and other states. We would remind you, further, that the prolonged fight to compel congressional restoration of the Sheppard-Towner law has not been abandoned.

Medical work among school children is being rapidly extended in various directions and we need to keep a watchful eye lest in some place it shall slip out of professional control. In a campaign speech, President Hoover recently pledged himself to a large gathering of women that, if reelected, he would push toward full fruition the Program of 19 Points which was promulgated by the White House Conference. Of those 19 factors in the "Children's Charter", at least 8 are purely medical in character and can be made effective only through the aid of physicians. How shall that necessary professional aid be obtained? Is it expected that physicians or medical agencies will voluntarily accept and develop the medical features of that program? Or, is some governmental provision for securing such medical assistance in contemplation? It would seem to be high time for the profession to give some thought to this matter.

Medical Ethics

MENTAL METABOLISM

John Hammond Bradshaw, M.D., F.A.C.S.,
Orange, N. J.

Even the simple statement that there is such a force as mental metabolism implies that it is subconscious. Our bodily metabolism is not under control of the brain any more than is the action of our endocrine glands. But, if the brain is part of the body, it is part and parcel of our whole anatomy.

We believe the brain to be the chief organ of the mind; therefore, we must concede that during all our life mental metabolism is always doing its bit in our behalf, even to the time when death ends our earthly existence.

Using the term *physical* simply to make distinction from *mental* (although they never can be divorced), both forms of *metabolism* are absolutely essential to all our lives and all our well-being. This statement naturally includes the mind and all its activities, conscious and subconscious. It can be easily understood that the usual tests, reactions and appliances used for obtaining knowledge of our basal metabolism cannot be employed to get any such like data when we come to investigate the mind.

The anatomist, the microscopist, the physiologist, the neurologist—each can tell us much about our brain. Yet, its cellular structure is invisible, except to lenses of exceptionally high power. As stated in a former article, we have in the brain an organ only a few inches in size and only forty odd ounces in weight, shut up in a tight bony box. It contains millions of cells and nerve fibers; not cells in the hollow, empty sense; not fibers in the stringy sense of sinews and cords, but centers of concentrated live potentialities, and live-wires, each with its official job. As most of these cells are on the cortex, the space that they can occupy is limited. We are not surprised, therefore, to know that they are microscopically small, some but 1/100,000 of an inch in diameter.

It is interesting to remember the marvelous fact that over 10,000 separate ideas can be registered in 1 inch of grey matter. (Read Helmholtz, Bain, Maudsley, *et al.*) Most astonishing it is that the transmission of these ideas is perfectly automatic; no pump, other than the heart, propelling the blood, is required for the oiling system. Action is often instantaneous, and for years can take place

without effort or pain. This out-mechanizes any known humanly made mechanism.

We can store ideas in these cells and neglect them for long periods of years, yet have the ability to single out one or more of those dormant ideas or memories and use them. Just remember, those little storage reservoirs are even less than 1/100,000 of an inch in size.

Now, the reason these statements are here repeated is that thereby we can better understand not only the possibility, but the *actuality* of mental metabolism; for, if we correctly understand what metabolism really is, it is inconceivable to have *thought* and *brain action* without it.

We think we do know something about volitional impulses, but what do we know about metabolic action that, sleeping or waking, is always (while we are alive) going on in this mysterious and uncharted part of our most conscious existence, the human mind?

It is not necessary to swallow with a single gulp the entire Freudian theory, for we already believe that there is subconscious *thought*. We are also quite sure there are *subconscious acts*. Our mental metabolism is not always correlated to our conscious will. We are forced to believe that some of our emotional energy is subconscious in its origin; for mental as well as bodily metabolism never sleeps. Therefore, we repeat, what goes on in our mental storage reservoirs cannot be measured by any machine that we know for determining metabolism. Our conscious behavior is often inaugurated, energized and consummated by primitive subconscious reactions.

Now, if there is a mental metabolism, is it not possible that there is also a *moral* metabolism? All this is important to the physician as well as to the churchman and the penologist. We must admit that morbid and evil results and conditions can be traced back to earlier acts or emotions, even if they are of subconscious origins. A disturbance of the mental metabolism we see even in the slight deviation from the norm in people otherwise normal. How can we, as physicians, correct early disturbed mental metabolism? If we can do this, as we surely believe we can, through the study of heredity, environment, education (and religion), we, as physicians, have available an enormous influence in the prevention of crime, the attainment of human happiness (if there is such a state), and, in fact, can do much for the future welfare of our race.

Dreams, human behavior while awake, active or repressed inhibitions, depravity—nat-

ural or abnormal—contradictions, sensuality—all these may be guided, corrected, abolished or increased by our mental metabolism.

The physician need not be a psychoanalyst (of whom there are many spurious coins) to read the writing on the wall. There can be no doubt that physical illness and depressions influence our mental as well as our physical metabolism; may they not also influence our ethical reactions?

Collateral Reading

THE GREAT GAME OF GRAB

Edward S. Martin

(The news-papers are carrying—in the early days of October—exciting statements concerning the Insull brothers, Samuel and Martin, one in Greece, the other in Canada, flitting from place to place to evade the “long hand of the law” and escape from the fury of their dupes who were promised and expected unearned riches. “How the mighty are fallen”, and what pitifully abject figures these financial giants make when they do fall from their tinsel thrones. Reading about the \$2,000,000,-000 crash of the Insulls reminded us of Mr. Edward Martin’s editorial, under the above title, in the Editor’s Easy Chair section of Harper’s Magazine, of June 1932, and we are reprinting a portion of it here as timely reading and good to remember whenever “easy money” is tempting one to invest his hard-earned money.—Ed.)

What about the great game of grab? Is it so good a game? Is it worth the trouble, the risk, the strain? Kreuger, of Kreuger & Toll, seemed to play it successfully, but the other day there came a check to his proceedings, and he elected to go out of life with a pistol bullet. George Eastman, who had also played it well, finding no more pleasure in making money and giving it away, seriously impaired, no doubt, in health so that living had become burdensome, put a pistol to his head and he too went out of life. “My work is done,” he said, “why wait?”

Now these were notable men. Kreuger had a remarkable mind, a remarkable talent. It had not been considered that his enterprises were what nowadays is called anti-social. He subsidized governments by large payments and bought match monopolies. What he did

seemed to be openly done. His suicide was attributed to exhaustion. But just at this writing the morning papers tell us that his accounts were wrong, that they had been falsified under his direction to exaggerate the assets and minimize the liabilities of his vast industrial concern. Certainly that is a sad story, and what it seems to tell us is that his game of grab was a sort of devilfish that had got him in its tentacles and crushed the life out of him. As for George Eastman, nothing about his business affairs was amiss. What ailed him seems mainly to have been a worn-out body. In providing photography for the millions and in films for moving pictures he did a service that is rated as useful to his generation and ours. As money goes, his money was clean. There is no complaint about his character. What he gave away seems to have been usefully bestowed, but one wonders whether, as it concerned himself, it was filling at the price.

To make a great money-making machine and then defend it from the encroachments of competition is a perpetual and anxious job. If it is worth doing, if it is an important element in human progress, then no matter about the cost to the individual. The man of all others who seems to have done it successfully is John D. Rockefeller, the elder. He has survived. He is an old man and goes on marvelously in apparent enjoyment of life. He seems happy in what he has done, happy in the disposition he has made of his profits, happy in living. Mr. Carnegie had a pretty good time—a remarkable man but hardly in the class of Mr. Rockefeller. Mr. Morgan loved to spend money, spent a great deal and never got tired of life; but then he had a great variety of interests. Henry Ford has had a lot of fun, has done what we are used to consider a great service in promoting transportation and road-making, has worked for what he thought to be the happiness of the mass of the people and, so far, maintains wonderfully his energies and activities.

There are others, plenty of them, who have played this game with apparent success, and thousands more who have attempted it but not successfully.

After all, what is money? Power, of course, nothing else—power to command the labor of men, power to produce, to change, to build, to finance all sorts of things including the pursuit of knowledge.

In Russia we are invited to believe, and do believe, that nobody is rich. The effort

has been to eliminate this game of grab, enlist talent and energy in the service of the people without this lure of getting rich. What is done in Russia is done with the intention, or at least professed intention, to make the mass of the people prosperous and happy and is planned and actuated by government. And what is that government? Just now virtually a dictatorship, but from the beginning of the present order government of the many by the power of the very few.

But the great game of grab does not stop with individuals; it is and always has been the game of the nations, led and managed, to be sure, by individuals. It is going on now all over the world—in Europe, in Asia, in Africa, and even here in the Americas, though not so seriously. The main trouble in Europe is the inability of the nations to get together. The inability rests on fear of each one that the others, or some of them, will get ahead of it. Competition has been said to be the life of trade; nowadays it is likely to be the death of it. Justice Brandeis in the Supreme Court the other day put in a dissenting opinion favorable to a law of a State that aimed to restrict competition. The Supreme Court ruled against it but Justice Brandeis, as said, dissented.

Our little systems have their day;
They have their day and cease to be.

Is competition one of them and is it passing? We cannot quite think that yet. It is too foreign to the habits of our minds, which will have to be reorganized before we can conceive and construct a world whereof competition shall not drive the wheels. But we may be on the way to that. At any rate, the game of grab as it has been played in our world in our time looks for the moment to be played out. It has brought us to a standstill. It rules at this moment the representative assemblies by will of which our governments must function. It governs cities and does it at great cost, in many cases dishonestly and badly. In its lower levels kidnapping, racketeering, and murder abound. Life is not safe in our country, neither is money, neither is anything. Six thousand banks have broken in the United States in the last 3 years. Here in this country the deficit is growing. Many of the veterans of the last war, politically powerful by organization, are screaming for a huge bonus to be paid them at once. The Methodists from their citadel overlooking the Capitol in Wash-

ington threaten any branch of government that does not meet their wishes in restriction and regulation of other persons' habits. What will happen when the Dry Law goes and the bootleggers are separated from their profitable business? Will they build another citadel overlooking the Capitol and coöperate with the Methodists? It is idle to speak in April of details in an article that is to be read in June; but what we are watching now and what we shall be watching then is the great game of grab working out to its solutions. They will be interesting without doubt, and they have got to come, for our world and our country in particular cannot go on as it is going now.

Let us recall for a moment some of the recent fiscal performances of our own country. We lent a lot of money and spent a lot of money on the war, but the money we lent for military purposes was spent in this country. One is told that it was stipulated that it should be so spent. It went for everything that supported the Allies—munitions, food, cotton, and everything else. The profits to our country have been loosely estimated at \$30,000,000,000. The government got in time a good sum of it back and reduced the public debt; but a vast amount of it remained, so the banks were overloaded with money and made frantic efforts to lend it in Europe, in South America, anywhere for almost any purpose, and were only too successful. Then we raised the tariff to benefit our own industries, which after the vast overstimulation of the war period had begun to languish. We got an overproduction of everything, needed a foreign market, and having raised the tariff, which cut down foreign trade, we did not get it. One reads that what made the depression was the fall in commodity values. Everything from grain to copper was overproduced beyond the ability of markets to digest. The subject is very solemn but it makes one laugh. When the bankers were lending money and were so crazy to get rid of it, all sorts of extravagances prospered. The villages got new town halls, the cities got tall towers and anything else they could think of. So that now we have the interesting spectacle of a flustered Congress twisting and squirming to find taxes enough to provide for the expenses of government and pay interest on our debts. And it is quite a pretty question whether we can do it, and the fact that it is a question keeps down the prices of securities of all kinds.

Current Events

POST-GRADUATE COURSES

Jersey City Medical Center

The Jersey City Medical Center has planned a series of Friday afternoon lectures on practical, clinical subjects by eminent internists and surgeons. These lectures, to be given in the Nurses' Auditorium, will begin promptly at 4.30 p. m., each Friday, beginning November 4, 1932.

PROGRAM

Nov. 4. "Diagnosis and Treatment of Coronary Occlusion." Dr. Cary Eggleston, New York, Ass't Prof. of Clinical Medicine, Cornell University Medical College; Associate Attending Physician, Second (Cornell) Medical Division, Bellevue Hospital.

Nov. 11. "The Unstable Colon." Dr. John L. Kantor, New York, Associate in Medicine, College of Physicians and Surgeons; Visiting Physician, Gastro-Intestinal Diseases, Vanderbilt Clinic; Attending Gastro-Enterologist, Montefiore Hospital.

Nov. 18. "Chronic Urinary Infection in Infants and Children." Dr. Meredith F. Campbell, New York, Attending Urologist, Babies' Hospital at Columbia Presbyterian Medical Center; Attending Urologist, New York Nursery and Child's Hospital.

Nov. 25. "Diagnosis and Treatment of Pericarditis." Dr. Lewis A. Conner, New York, Consulting Physician, New York Hospital; Prof. of Clin. Medicine, Cornell University Medical College.

Dec. 2. "The Hemogram in Infections." Dr. Paul Reznikoff, New York, Ass't Prof. Medicine, Cornell University Medical College; Executive Chief of the Medical Clinics, New York Hospital; Hematologist to the Department of Medicine, New York Hospital, and of the Second Medical Division, Bellevue Hospital.

Dec. 9. "Preventive and Alleviating Methods in the Treatment of Deafness." Dr. Harold Hays, New York, Attending Otolologist, Park West and Park East Hospitals; formerly President of the American Federation of Organizations for the Hard of Hearing and the New York League for the Hard of Hearing.

Dec. 16. "Diagnosis and Management of Carcinoma of the Large Intestine." Dr. Richard B. Catell, Surgeon, Lahey Clinic, Boston, Mass.

Dec. 23. "Medical Treatment of Gall-Bladder Disease." Dr. Martin E. Rehfuess, Philadelphia, Pa., Assoc. Prof. Medicine, Jefferson Medical College.

The program has been arranged by the Committee on Post-Graduate Instruction, Dr. Charles B. Kelley, Chairman, Dr. Thomas White and Dr. Louis L. Perkel, in coöperation with Dr. George O'Hanlon, Medical Director, and Dr. William B. Freile, Staff President.

All members of the medical profession are cordially invited.

GLEN GARDNER

Twenty-Fifth Birthday Celebration

(Report reprinted from the Health Bulletin published by the New Jersey Tuberculosis League, issue of September-October, 1932.)

A quarter of a century has passed since the State Tuberculosis Sanatorium, affectionately known as Glen Gardner, opened its doors to serve the people of New Jersey, "as a model institution, largely

educational in character". The consistent fulfillment of this objective was attested on September 17, when representatives of official and volunteer health organizations, social agencies, county sanatoriums, and state and county governments joined with the sanatorium's alumni in marking the Silver Anniversary of the institution which had been their rallying point in an increasingly successful campaign of prevention.

The impetus for sanatorium care of the tuberculous was given in an address before the Medical Society by Dr. Luther M. Halsey, then its President. A bill was passed by the Legislature in 1902, authorizing the erection of the institution, and a Board of Managers was appointed by the Governor, Franklin Murphy. The President, elected by the Board, was Dr. Charles I. Kipp of Newark, recently deceased, for whom the mountain on which the sanatorium was built was named Mount Kipp.

Glen Gardner is one of the nation's pioneer institutions for the cure of the tuberculous. Only Massachusetts, New York and Rhode Island supported state institutions prior to 1907. However, that was a banner year for the sanatorium movement; Michigan, Missouri, Pennsylvania, Vermont, Wisconsin, Minnesota, Delaware, joining New Jersey in making state institutions available. Hudson County built its sanatorium at Laurel Hill the same year, with Dr. B. S. Pollak as Director. Other counties have followed, until almost every large county in the state has its own institution—Atlantic, Bergen, Camden, Essex, Burlington, Monmouth, Mercer, Morris, Passaic and Union, all being included in the honor roll.

Dr. Samuel B. English was appointed Medical Superintendent of the new sanatorium and continues to head it today. Friends and enthusiastic admirers made the anniversary an occasion for expression of their gratitude and esteem. Co-workers emphasized his social vision and organizing ability as a fundamental factor in the remarkable growth of the tuberculosis and public health movement in the state. Never in the past years has this human and humorous leader lost the vision of the purpose of the institution, *to teach and to guide, as well as to restore and rehabilitate.*

When the sanatorium opened there was little officially supported nursing and clinic work in the state. Dr. English promptly enlisted the facilities initiated by volunteer groups. He has seen many of these developed with well-equipped centers under municipal or county auspices. In some cases the volunteer groups coöperate with the official agencies; in others, they still retain and finance the clinics. In 1921 an extension clinic department was inaugurated, aiming to furnish assistance in sections of the state unable, for any reason, to obtain or finance the services of skilled clinicians. This department holds clinics in every county of the state, coöperating closely with health departments and tuberculosis associations. Every year more than 7000 persons seek advice and assistance at the clinics, which have always had the generous support of the physicians and medical societies of the state—because they give a readily available and convenient service as diagnostic centers.

Since the new children's building and infirmary opened in 1928, Glen Gardner can care for 326 adult male and female patients, as well as 114 children—a total of 440.

A recent survey of nearly 10,000 patients treated since the opening of the institution showed that more than 50% are alive and working or in school.

Among the many notables congratulating Dr. English were Governor A. Harry Moore, Commissioner William J. Ellis, Department of Institutions and Agencies; Dr. Kendall Emerson, Managing Director of the National Tuberculosis Association.

Dr. English became a Director of the New Jersey Tuberculosis League at the time of its reorganization in 1913. He has since been among its most active members, serving a term as President, as representative Director on the Board of the National Tuberculosis Association and as a member of the Executive Committee.

State Health Department

NEW ARRANGEMENTS FOR LICENSING CERTAIN BOARDING HOUSES

J. Lynn Mahaffey, M.D.,

State Department of Health, Trenton, N. J.

Representatives of the State Department of Health took an active part in the semi-yearly session of the New Jersey Health Officers' Association meeting at Bergen Pines, Bergen County, October 13. The session was held at the Bergen County Isolation Hospital, a well-appointed institution.

Chief among the projects endorsed was a plan of coöperation between the State Department of Health and State Board of Children's Guardians, for the supervision of licensed municipal boarding homes for infants. It will result in child hygiene nurses of the health department making regular visits to mothers and instructing them in care of infants. Before submitting the program, the health department secured the approval of William J. Ellis, Commissioner of Institutions and Agencies.

The plan of coöperation provides that:

Local boards of health will accept for license boarding homes recommended by the State Board of Children's Guardians without any inspection from the local department.

Representatives of the department of health will not supervise, visit or inspect homes in which the State Board places children, unless a request is made of them in a special case.

The homes which are used by the State Board and for which licenses or permits are issued will be kept confidential and will not be submitted for use to any other organization or individual.

Local boards of health will supply to the State Board of Children's Guardians a list of all licensed homes, which they may use as they desire. If the State Board decides to use any of these homes, they will be transferred to the confidential list.

When the State Board submits a home for license, it will be expected to supply the name, address, number of persons in the family, number of rooms occupied, and the number of children for whom it wishes a license issued.

It will be arranged that any issues between the local boards of health and the State Board of Children's Guardians will be referred to the State Department of Health and will not be taken up individually by the local boards.

It would be possible, in many communities, to arrange for monthly visits by child hygiene nurses to homes in which children are placed for the purpose of instructing foster mothers in the proper care, feeding and management of children. It

could further be arranged that any information which the State Board desired should be furnished to them. It is understood, of course, that if it was not desirable to have nurses visit homes, it would be arranged that no such visits would be made.

Reporting on communicable diseases, William H. MacDonald, Chief of the Bureau of Local Health Administration, State Department of Health, Trenton, said that during 1931 the case and death rate from typhoid fever was the lowest in the history of the state.

Typhoid fever has been occurring less each year for a period of years, which shows the effect of applying modern principles of sanitation and public health practice designed, directly or indirectly, to prevent the occurrence and spread of this disease. Last year's records also show the lowest case and death rate from diphtheria. The 1931 rate was less than $\frac{1}{2}$ the rate in the previous year, which up to that time was the lowest rate on record. These figures prove the value of the immunization program which has been carried on throughout the state during past years, and should act as a stimulus to further immunizations. The 1931 death rate from tuberculosis is also a low record. The indicated fatality rate of this disease remains relatively high and is not satisfactory. It more than strongly suggests that the reporting of cases of tuberculosis is still incomplete in spite of efforts to have physicians and others report such cases promptly."

Communications

SOCIAL INSURANCE—COUNTER-SUGGESTIONS

Edward H. Ochsner, M.D.,

Chicago, Illinois

(This is the eleventh in a series of letters on social insurance.)

The medical and dental professions of this country are giving the American public the best all-round health services ever enjoyed by any nation, and are on the whole serving the nation as well as or better than any other group of men; perhaps because the members of no other profession are in so favorable a position to exert so great an influence for good as are dentists and physicians, if they will but use their opportunities rightly and wisely. If they are to accomplish the greatest possible good, however, they must make still closer contacts with, and exert still greater influence upon, the political, social, and ethical life of the nation; they must strive unceasingly and untiringly, in the future as in the past, for still further improvements in their respective fields. If unhampered by lay bureaucratic supervision and control in the future as they have, on the whole, been in the past, we have every assurance that they will proceed to new and greater achievements; if, on the contrary, unduly hampered, we have every reason to expect medical service to deteriorate and medical progress to cease as it has already done in those countries whose governments have interfered the most.

In order to maintain the high standard of medical services prevailing, these professions must insist that the governments of the various states maintain high standards of requirements for ad-

mission to practice. In order to accomplish this, continued education of the public in this regard is necessary.

The organized professions must, through their proper local organizations, see to it that all undesirable are weeded out and that the individual members render efficient service for adequate, and yet reasonable, fees. The professional man who makes unreasonably exorbitant charges for his services is an even greater menace to private practice than is he who charges too little. The former is the one to blame for most of the antagonism and resentment among the laity, while the latter, because of his unfair competition, makes it difficult for his colleagues to secure the necessary means for graduate work so essential to growth and progress.

Having presented to the attention of my readers through these articles the defects of Social Insurance as practiced at present in foreign countries, and also having shown the dangers of such a system if allowed to become fixed upon the American citizen, I offer as counter-suggestions that the government, instead of wanting to take over new functions and new powers, would do better were it to make every effort to perform acceptably the duties with which it now is entrusted. We of the medical and dental professions insist that the government should give better medical service to its prisoners, delinquents, insane, paupers and wards in general; that it must give more serious attention to sanitation and hygiene, particularly to ventilation of public conveyances and places where large numbers of people congregate, and to the prevention of pollution of our sources of community water supply such as lakes and rivers.

The allied professions, in conjunction with the government, should give more serious attention to teaching personal hygiene in schools, colleges and universities. Our educational institutions should teach the "rising generation" to appreciate the value of integrity, industry, thrift and frugality, and that there is no substitute for these—not even legislation. Teach them that trying to keep up with the Joneses is not necessarily a virtue, and that the instalment buying of luxuries and trying to keep ahead of the Browns is poor business. Teach them that to learn how to get one's money's worth and to acquire a competence are much more worth-while. Teach them that trying to get something for nothing, particularly through gambling, whether it be crap-shooting, poker, or buying stocks on margin, is fundamentally dishonest and almost invariably leads to disaster.

Better provisions for safeguarding the savings of our workers should be made and if there is no way of accomplishing this, there should be established a compulsory government insurance against sickness whereby the individual worker pays for his own insurance; in other words, separate entirely medical services and cash benefits. The physician should under no circumstances be medical adviser and insurance adjuster, as he is, in fact, in all systems of Compulsory Health Insurance now in vogue.

Social Insurance is man's latest attempt at finding a means whereby social justice may be attained. But, like all panaceas so far advanced, it is sure to make conditions worse rather than better. The first and most important thing to do is to secure honest and efficient government, and this cannot be accomplished until the general standard of honesty has greatly improved; which is simply another way of saying that there is no substitute

for character of the individual members which make up a nation.

FINALLY, devise means and methods whereby remuneration and reward shall be in direct proportion to time and energy legitimately expended and to the value of services rendered to society.

While the underlying purpose of Social Insurance is to secure the more equitable distribution of wealth, and to employ the weapon of taxation in order to secure the necessities and comforts of life to the poor at the expense of those with larger incomes, the system is of necessity doomed to failure because it does not conform with the foregoing fundamental principle of justice but, instead, rewards the inefficient at the expense of the efficient; the lazy, shiftless and immoral—at the expense of the industrious, thrifty and moral. While it is unquestionably true that certain individuals have been and are still receiving money for which they have not rendered an equivalent service to society, trebling and quadrupling and even 10-fold the number of these parasites will not correct the evil. The remedy must be much more fundamental.

This formula will require the best brains of the country for its practical application, but I am firmly convinced that it is the only formula that offers a practical solution to our social and economic ills, not only of the allied professions but of society in general. If it be followed, those members of society who are doing the world's work will have enough money to employ capable dentists and physicians of their own choice and will then be assured adequate health service.

(To be concluded in the December Journal.)

NIGHT NURSING IN HOSPITALS

(A letter from the American Nurses Association, concerning an investigation made recently by one of its members, Miss Blanche Pfefferkorn, R.N., whose report, from which this abstract was made, appears in the Amer. Jour. of Nursing, November, 1932.)

A new deal for the hospital patient at night is asked by Blanche Pfefferkorn, R.N., after a study of the night nursing service in 7 hospitals on the eastern seaboard.

"While, from the standpoint of the student, there is much that is difficult to defend in the present system of night nursing; from the standpoint of the patient, there is more that is indefensible", states Miss Pfefferkorn, who is director of studies of the National League of Nursing Education. "The wise innovations introduced in the past 2 decades into the nursing program by day graduate head nurses—an increased number of bedside graduate nurses, more and better supervision, shorter hours, and supplementary ward workers—have scarcely touched the night nursing program."

To get the data presented in her article, Miss Pfefferkorn obtained permission from the hospitals to spend 12 consecutive hours, from 7 p. m. to 7 a. m. observing nursing at night. The interest of the National League of Nursing Education in making this study, according to its statistical worker, is not in the nursing in any particular hospital, but in nursing at large. It is believed that the nursing conditions found in the 7 hospitals visited are not peculiar to those institutions but that similar conditions exist in many other hospitals.

In 6 of the 7 institutions visited, the acute medical and surgical wards studied were staffed with

student nurses; in the other, a graduate and a student constituted the bedside staff throughout the night. The average number of minutes of care per patient ranged all the way from 21.8 to 144 minutes. But, not only was there a wide range in the *quantity of service*, there was an equally wide range in its *quality*. In 3 of the hospitals visited, the night nursing on the wards was entirely delegated to students who had been in school less than a year; 10-12 hr. duty was still in effect; inadequate preparation and long hours of service, both, militated seriously against safe care of the patient, for, try as she will, the director of nursing cannot satisfactorily regulate the staffing at night unless the hospital provides a reasonable number of graduate nurses for bedside service.

Not only was the nursing of patients delegated to an inadequate and immature staff, but the study indicated that night supervisors are not selected upon the same high standards as are members of the day supervising staff. Certain other improvements were noted, such as postponement of the early morning work until 5 or 6 a. m., and the serving of breakfasts by the day staff instead of the hurried and necessarily unsatisfactory serving by the night nurse. If patients are to have proper care at night, 4 conditions must obtain, Miss Pfefferkorn concludes: (1) Enough nursing time must be provided. (2) Night nurses must be adequately prepared; which provision includes a liberal number of graduate bedside nurses for the night. (3) Enough supervision must be provided, both in quality and in quantity. (4) A reasonable hour schedule must be put into effect.

AMERICAN SOCIETY FOR THE CONTROL OF CANCER

(A letter from C. C. Little, Managing Director.)

At its meeting of October 8, the Board of Directors of the American Society for the Control of Cancer took the following action:

"It was voted that the *Bulletin* of the Society be made its official organ and that the present relationship between the Society and the *American Journal of Cancer* be discontinued."

THE ALPHA OMEGA ALPHA HONORARY FRATERNITY

(Letter received from Dr. Walter L. Bierring, President, Des Moines, Iowa.)

At a recent meeting in Chicago, the Directors of Alpha Omega Alpha Honorary Medical Scholarship Society adopted the following resolutions in recognition of the eminent services of the late Dr. William W. Root, Slaterville Spring, New York, the Founder of the society and Secretary-Treasurer since its organization in 1902:

(1) That all stationery and official documents of the society bear the words, "Founded by William W. Root, in 1902", and (2) that the Annual Lecture presented each year by a leading medical scientist, be known as the "William W. Root Alpha Omega Alpha Lecture".

The present officers of the society are: Walter L. Bierring, Des Moines, President; Austin A. Hayden, Chicago, Vice-President; Josiah J. Moore, 55 E. Washington Street, Chicago, Secretary-Treasurer. Mrs. Root will continue as Assistant-Secretary.

In addition to the officers, the Directorate in-

cludes Ray Lyman Wilbur, Washington, D. C.; Waller S. Leathers, Nashville; Louis B. Wilson, Rochester, Minn.; and Willard C. Rappelye, New York City.

The "Committee on Extension and Policy" comprises Elias P. Lyon, Minneapolis, Chairman; William Pepper, Philadelphia; Irving S. Cutter, Chicago; Frederick C. Waite, Cleveland; and Thomas C. Routley, Toronto.

N. J. CONFERENCE OF SOCIAL WORK

To be held in

TRENTON, DECEMBER 1-3, 1932

Physicians should be especially interested in the session of Friday morning, December 2, which deals with various social and economic problems of medicine. Programs may be obtained from the Conference office, 21 Fulton Street, Newark.

In Lighter Vein

Safety First

"Did you tell Mr. Beinlich that he is father of triplets?"

"No, he is still shaving."—*Deutsche Illustrierte* (Berlin).

Ginger-snaps

Conductor (helping stout lady on car)—"Yer should take yeast, mother, ter 'elp yer to rise better."

Stout Lady—"Take some yerself, lad, and then yer'd be better bred."—*Sheffield Telegraph*.

Round 'n Round 'n Round 'n Round

"Do you remember when we met in the revolving door?"

"Goodness, yes! That was when we started going around together, wasn't it?"—*Mugwump*.

Plain Logic

A Scotsman, upon entering a saddler's, asked for a single spur.

"What use is one spur?" asked the man.

"Well", replied Sandy, "if I can get one side of the horse to go the other one will hae to come wi it."—*Port Arthur News-Chronicle*.

Wham!

Hands off steering wheel,

Arms around girl—

'Cross the fence Willie—

In the ditch Pearl.

—*Florida Times-Union*.

Songs of Buds and Bullets

First Lawyer—"I've just taken the case of that woman who says she shot her husband because she loved him."

Second Lawyer—"I suppose your plea will be that spring is the time for tender shoots."—*Wise-cracker*.

Cash Aspect of Romance

"Youth calls to youth," the poet says,

And it's a good thing, too;

If youth did not, the telephones

Would bring less revenue.

—*Boston Transcript*.

Woman's Auxiliary

TAKE THIS JOURNAL HOME TO YOUR WIFE

(The introductory message to the Auxiliary this month is reprinted from the Colorado State Society's Journal of November 1931, for the reason that we considered it particularly *à propos* at this time.—Ed.)

"It is a frequent comment among the members of our Woman's Auxiliary that they 'never see a Colorado Medicine'. Some of the members of this society may not have noticed that this journal carries a section for the physicians' wives. (In New Jersey that has been done monthly ever since our Auxiliary was first organized.) In it are to be found articles upon national as well as local Auxiliary affairs. They are worthy of the attention of the doctors—and most certainly of their wives.

We are depending upon the support of the wives of physicians throughout the country to augment our efforts in educating the public in preventive medicine, the health examination, and the proper direction of health legislation. They are capable of inspiring confidence where we may fail; they may convey messages to lay organizations which our ethics and humility unfortunately preclude. It is for our profession that they have organized and are working. Their value to our cause is unlimited; but, *it will be largely in proportion to the aid and encouragement they receive at the hands of their physician-husbands.* It is known that a number of physicians are unsympathetic with the Auxiliary and its work. May they allow themselves to recognize the potentialities of this organization and endeavor better to inform themselves of its capabilities.

It is hoped that each issue of Colorado Medicine will be placed in the hands of the wives of our Society members before each month has passed. There is material in the Auxiliary section which will be of interest; there will be reading matter in other sections which will further enhance their understanding of the work of the profession."

In addition, let us remind you—New Jersey readers—that our *State Society* will send this Journal regularly, without cost, to members of the Auxiliary who are widows of former members of our Society.

Bergen County

Reported by Mrs. Harrison B. Wilson

The first autumn meeting of the Woman's Auxiliary to the Bergen County Medical Society was held at the Elks' Club, Hackensack, October 11, at 9 p. m., with the President, Mrs. Joseph Morrow, in the chair.

After a short business session, Mr. Jeffrey, of the Walker Gordon Laboratories, told of the work accomplished there and extended an invitation to this auxiliary to inspect the plants and have luncheon. The date planned is Tuesday, November 15; the auxiliary members will meet at the Elks' Club House in Hackensack at 10.30 a. m. for the all-day trip.

The guest speaker of the evening was Miss Edith Stuckey, Publicity Director of the New Jersey Tuberculosis League. Her subject, "The Relation of the Doctor's Wife to Public Health Problems", dealt chiefly with the problem of tuberculosis. Miss Stuckey told of Frau Koch, of Berlin, and Mrs. Trudeau, of Saranac—both great help-mates to

their doctor husbands. Trudeau's was the first tuberculosis sanatorium in America. The speaker stressed the care of our youth in trying to prevent contraction of this dreadful disease. Plans should be made to give our youth more sleep, good, wholesome food, and plenty of outdoor life.

The President, Mrs. Joseph R. Morrow, told of her recent trip to Europe in regard to tuberculosis.

Dainty refreshments were served at the close of the meeting.

Camden County

Reported by Mrs. W. H. Pratt

A Tea in honor of Mrs. Walter Jackson Freeman, of Philadelphia, President of the Woman's Auxiliary to the American Medical Association, was given on October 10 at the home of Mrs. A. Haines Lippincott, Camden, President of the Woman's Auxiliary to the Camden County Medical Society. Mrs. Freeman, who had just returned from a western trip, was unable to be present because of illness.* Other guests were: Mrs. J. Newton Hunsberger, of Norristown, Ex-President of the National Auxiliary; Mrs. W. B. Odenatt, of Philadelphia; Mrs. R. W. Tomlinson, of Wilmington; all of whom are members of the Executive Board of the National Auxiliary. Mrs. R. Powers Wilkinson, President of the Philadelphia Auxiliary; Mrs. James Hunter, of Westville, Ex-President of our State Auxiliary; Mrs. E. E. Downs, President of the Gloucester County Auxiliary; Mrs. Emlen P. Darlington, President of the Burlington County Auxiliary; Mrs. Ralph K. Hollinshead, of Westville, Chairman of our State Committee on Hygeia; were also present. Mrs. Charles F. Adams, of Trenton, President of our State Auxiliary, was unable to be present because of illness.

This Tea was held in lieu of our regular meeting, with Mrs. Lippincott and the members of the Executive Board receiving.

In her opening address, Mrs. Lippincott urged the members to subscribe to Hygeia, and to purchase Christmas Seals to support the local Tuberculosis Association.

Mrs. David F. Bentley, Jr., Chairman of the Membership Committee, reported 22 new members added to our roster.

Mrs. Hunsberger spoke of the work of the National Auxiliary, which is now 10 years old.

Mrs. Odenatt gave an interesting account of the efforts of the National Archives Committee, in conjunction with Mrs. Freeman, to collect and preserve all archives of the auxiliaries.

Mrs. Tomlinson, Treasurer of the National Auxiliary, also spoke.

A most enjoyable Tea and social hour closed the meeting.

A card party was held at the Haddon Fortnightly Clubhouse, Haddonfield, October 15 for the benefit of the Camden County Tuberculosis Association. The sale of tickets, cakes and candy for this affair proved very successful.

*(Members of the Auxiliary who have not heard the sad news from other sources will be sorry indeed to learn that Mrs. Freeman's illness ended in death shortly after the above mentioned meeting.—Ed.)

Hudson County

Reported by Mrs. James M. Murphy

The regular monthly meeting of the Woman's Auxiliary to the Hudson County Medical Society was held at the Y. W. C. A., in Jersey City, Octo-

ber 3, with the President, Mrs. Culver, in the Chair; about 25 members were present.

The minutes of the previous meeting were read and, after 1 correction, approved as read.

The resignation of 1 member was accepted with regret; 1 new member was welcomed.

The sale of Hygeia was stressed, and the Chairman of the Hygeia Committee, Mrs. F. Nicholson, volunteered to canvass the Auxiliary members to find out how many are already subscribing and to get new subscriptions.

Plans for the winter were discussed. To help swell the fund for charity, a card party will take the place of the November meeting.

The delegates gave an interesting account of the Auxiliary Convention in June, at Atlantic City. At the luncheon, given at that time, pins were presented to former Presidents. Mrs. John Nevin, a former President, exhibited her pin, and all remarked upon its beauty.

There being no further business, the meeting adjourned and tea and a social hour followed.

Passaic County

Reported by Mrs. Burt W. Botbyl

On Monday, October 17, a very delightful luncheon was enjoyed by 32 members of the Woman's Auxiliary to the Passaic County Medical Society at the North Jersey Country Club.

The table decorations and arrangements for the luncheon were in charge of Mrs. A. M. Schultz and Mrs. William A. Dwyer. The beautiful bouquets were later sent to Dr. Tuers, who is convalescing in the General Hospital, and Mrs. Phelps, wife of Dr. James Phelps, convalescing in St. Joseph's Hospital.

Mrs. Russell, President, outlined plans for the coming year. Mrs. O. R. Hagen spoke on the importance of voting and voting intelligently. Mrs. Dwyer, delegate, reported briefly on the Convention in Atlantic City last June. The balance of the afternoon was devoted to cards.

County Society Reports

ATLANTIC COUNTY

John S. Irvin, M.D., Reporter

The regular meeting of the Atlantic County Medical Society was held October 14, at the Chalfonte Hotel with 45 members present.

A card of appreciation was read from Dr. Walt P. Conaway.

A letter from the Camden County Society was read, announcing the delegates appointed from that county to visit the Atlantic County Society during the coming year and requesting the Secretary to submit the names of our delegates to that society.

Dr. W. Blair Stewart expressed, in a letter to the Society, his regret at being absent due to the illness of his son and his family.

A letter from the Nurses Registry of Atlantic City stated that registration offices would be continued in the Cordova Apartments, and requested coöperation of the Society in keeping the service as it has been in the past.

Applications for membership were read, and referred to the Board of Censors for action, from Roland L. Britton, M.D., and Winifred A. Blampin, M.D.

Abbott's Dairies, Inc. acknowledged by letter

our expression of appreciation of the hospitality at the May meeting.

A letter from the Secretary of the State Society addressed to the Treasurer advised that the state assessment for the coming year will be \$10.

Dr. Davidson said that there would be a balance in the Treasury at the end of his term in office and that the new officers, if they see fit, should be able to reduce the dues further.

Dr. J. Bennett Morrison, Secretary of the State Society, spoke concerning the plan to recognize specialism and specialists. He said that there are numerous men practicing as specialists who have no right to that title, and that the plan of the Society was to make a definite amount of education and experience along the lines of each particular specialty necessary before these doctors can call themselves specialists.

Dr. Morrison also stated that the State Society contemplates passing a resolution—that all hospital boards of governors should have at least 1 physician, who is on their hospital Staff, as a member of the Board. He discussed also the subject of free clinics and fee tables.

Another subject of great importance is the Rutgers-State Society Courses for the coming winter. The several courses will have 6 lectures each and the fee will again have to be \$30 because the Legislature reduced the Rutgers appropriation.

Dr. S. Rosenblatt stated that the Board of Education had recently cut the medical, dental, and nursing staffs almost 50%.

Dr. Quinn gave figures showing the amount of work done in the schools and pointed out how impossible it will be to maintain the present standard of health education in the schools with so few on the Staff to conduct the health program. He felt the Society should pass a resolution favoring maintenance of this Staff in order that the children of Atlantic City shall not suffer.

Dr. Davidson stated that the Society has no authority to tell the Board of Education what to do, and he asked Dr. Ireland, who is a member of the local Board of Education, if he could tell the Society why this cut had been made.

Dr. Ireland said the Board simply did not have the money to pay these doctors and nurses; that was the reason for discontinuing them.

Dr. Salasin said that he thought it poor economy to jeopardize the health of the school children and the reputation that Atlantic City enjoys for the Health Education Program; he thought the Society should oppose any such plan of economy and he moved that a committee be appointed to prepare such a resolution. The motion was carried and a committee will be appointed by the President to formulate this resolution and send it to the Board of Education.

Dr. Morrison suggested that the Society might take the matter up with the Parent-Teacher Associations and, perhaps, might be able to do something effective.

Dr. A. M. Rechtman being ill, Dr. A. J. Davidson, Associate Professor in Orthopedic Surgery, Jefferson Medical College, gave a "Résumé of the Orthopedic Treatment of Infantile Paralysis". (To be published later in the Journal.)

Discussion followed by Drs. Silvers, Subin, Allman, Martin and Salasin.

The second paper of the evening was read by Dr. William J. Mallory, Professor of Medicine at George Washington University, Washington, D. C., entitled "Medical Aspects of Carcinoma of the Colon". (Also to appear in a later issue of the Journal.)

BERGEN COUNTY

Charles H. Littwin, M.D., Reporter

The regular monthly meeting of the Bergen County Medical Society was held October 11, at the Hackensack Elks Club with about 80 members present. Dr. Schmidt presided.

Dr. George Finke, Chairman of the Nominating Committee, presented the following nominations for the Committee to Accredited Specialists: F. S. Hallett, 3 years; G. H. Ward, 4 years; F. C. McCormack, 5 years. All were elected.

Applications for membership were read, from Drs. Frank I. Nichols (Regular Membership) and B. A. Morrison (Junior Membership).

Elections to membership were: Regular—W. B. Allan, of Englewood; John A. Skvarlo, of Wallington. Associate—F. P. Twinem, of Hackensack. Junior—F. A. Patti, of Leonia; Yates S. Palmer, of Edgewater; William C. Rucker, of Hackensack.

The following widely heralded debate was a great success. *Resolved*: That physicians should dispense their own medicines. On the affirmative side Drs. Alexander and Irwin spoke with most convincing arguments. However, Drs. Huff and Wilson shook them off with telling negative points. It was excellently done. By a close margin, the vote was in favor of the negative side.

Introduced by Dr. Littwin as one of the outstanding workers in his field, Dr. Bret Ratner, Clinical Professor of Pediatrics at New York University Medical College, gave a talk on "Allergy in Children", an abstract of which follows.

The discovery of anaphylaxis by Richet and Portier, in 1902, laid the foundation for the study of protein hypersensitiveness, as it showed that a harmless antigenic substance, gaining entrance into the body, will establish a state of hypersensitiveness in a susceptible individual, and when that harmless protein enters the body again, various reactions ensue. Protein hypersensitiveness is due to the fixation of specific sensitizing antibodies to the smooth muscle cells of the bronchioles, and to the cells of the blood vessels, mucous membranes and skin, which results in the symptom complexes of asthma, eczema, urticaria or hay-fever—known as allergic diseases. Idiosyncrasy to drugs, and bacterial allergies noted in tuberculosis, rheumatism and scarlet fever, must be grouped in the general domain of hypersensitiveness, but the true allergic diseases above mentioned are due to the entrance of protein substances found in foods and pollens. Heredity *per se* plays no proved rôle in the pathogenesis of allergy and the susceptibility of an individual may be dependent on many factors of a physiologic and physiochemical nature which are yet not fully understood. Granted a susceptibility, a child acquires hypersensitiveness through several portals of entry, namely:

(1) *Respiratory*. We have shown experimentally that guinea-pigs can be sensitized by inhaling antigenic dusts and, after an incubation period, when these substances are again inhaled the animals will manifest all the symptoms of true bronchial asthma; which explains the mechanism whereby individuals become sensitive to pollens, feathers and animal hairs.

(2) *Gastro-intestinal*. Van Alstyn, Wells, Schlos and Walzer have shown that unchanged proteins can pass through the normal gastro-intestinal tract unchanged and gain entrance into the blood stream, thereby establishing hypersensitivity to foods; and we have shown that 50% of guinea-pigs can be sensitized to milk proteins by drinking raw milk.

(3) *In utero*. A child may be sensitized in utero; a condition termed "congenital protein hypersensitiveness". By this mechanism we were able to show experimentally why children who partake of new foods for the first time develop an allergic reaction, such as giant urticaria, angioneurotic edema, asthma or eczema. These children have been sensitized before birth and their sensitization is usually a direct result of excessive indulgence in protein foods, on the part of the mother in the late months of pregnancy, and is closely linked up to the "cravings of pregnancy". It has also been shown that a mother who is, herself, suffering from an allergic disease can transmit the identical sensitivity to her fetus in utero.

(4) *Parenteral*. Sensitization may result through the skin from massive doses of serum, from bee stings, or through a break in the skin which permits antigenic substances such as pollens and animal emanations, to gain entrance into the blood stream.

Study of the allergic child. The diagnosis depends largely on a good history, which is fundamental in determining whether a child is allergic and what the cause may be. The physician must be certain that symptoms of asthma are recurrent, explosive in nature, and persisting for some time; that the eczema is of a chronic nature and itchy in character; that the urticaria are giant in character and occur on parts of the body not exposed to irritating contacts, and usually accompanied by angioneurotic edema; that symptoms of coryza indicative of hay-fever recur at a particular time each season. Practically all cases of true asthma in childhood are antedated by a history of eczema, urticaria or angioneurotic edema. Sneezing, coryza, and itchy eyes are frequent symptoms in allergic children. Conditions such as migraine, gastrointestinal upsets and epilepsy may, in certain instances, be allergic.

After the diagnosis has been made, the child should be studied in the following manner:

(1) *Skin tests*. All available proteins (several hundred) should be used to determine the exact cause of the allergic condition. In addition, the child should be tested with extracts made of all environmental substances, such as mattress stuffing, pillows, toys, cosmetics, animal pets and dusts. This has been most helpful in asthmatic patients who do not react to ordinary skin tests, and even in eczema and urticaria we are able to determine the exact cause when we test with the above mentioned environmental substances. The tests must be painstaking, but in a large percentage of cases give the exact cause of the condition.

The scratch test is preferable to the intracutaneous. It is painless and time-saving, since about 50 accurate tests can be made in ½ hr. They are done best on the back or chest.

(2) *Other diagnostic procedures*. Radiograms of chest and sinuses are essential to rule out any infections and in rare instances tumors or foreign bodies of the lung. Pictures of the wrists may be used for study of the ossification centers. In delayed ossification, thyroid therapy is indicated. Urinalysis, blood counts, blood chemistry and tuberculin tests should all be done to get a complete picture of the allergic child.

Horse serum hypersensitiveness. Children are made sensitive to serum, in rare instances, by administration of large, repeated injections of serum. There is no proved instance of sensitization resulting from the administration of toxin-antitoxin. We have shown experimentally and clinically that

the majority of horse serum sensitivities occur in children who are sensitive to horse dander. Whenever serum is to be given to a child, it is important that an intracutaneous injection of the anti-toxin or serum be given and the patient kept under observation for 15 minutes. If the child develops an immediate systemic reaction, such as dyspnea, urticaria or angioneurotic edema, that child should not be given horse serum intravenously. If serum administration is essential, every attempt should be made to get goat serum, and if this is not obtainable, the serum should be administered in small, even doses over a 24 hr. period in conjunction with small injections of adrenalin and atropine. Desensitization cannot be accomplished in a few hours.

Treatment. The patient may be treated in one of several ways: through elimination; through desensitization by mouth; and through desensitization by injection.

(1) By *elimination* we mean the absolute and complete elimination from the diet and environment of all substances to which the child is sensitive. This elimination must be complete, and if it is accomplished, the child will be free from all attacks and recurrences of symptoms. Often when a single food is eliminated or a particular pillow or pet is discarded, the child may be relieved. Other cases are more complicated.

(2) *Desensitization by mouth* is accomplished by giving very small amounts of foods regularly for building up a tolerance. A child sensitive to egg, may tolerate a 30-minute hard boiled egg. If sensitive to milk, evaporated milk is generally well tolerated. Thoroughly cooked foods are tolerated by children who are sensitive to the same foods in their raw state.

(3) *Desensitization by injection* is done by giving minute injections, in increasing doses, for a period of months. Pollen desensitization is accomplished best by giving the child injections every 2 weeks from October until a couple of months before the pollen season; at which time injections are given at weekly intervals. This is known as perennial treatment and is the treatment of choice; but, hay-fever patients can also be treated pre-seasonally or even co-seasonally. Injections for desensitization may be a source of danger in the hands of the inexperienced. The primary rule is to start with minute doses. Never make an increase when a local reaction develops; make all increases slowly.

Medication. Never give a child injections of morphine during an attack of asthma. Ephedrine and amytal combination, and tincture of belladonna by mouth, are the most important drugs for allaying an attack of asthma, urticaria or angioneurotic edema. Adrenalin is the drug of choice for injections. It should never be given in larger doses than 5 minims and not repeated too often. The child should be kept near an open window during an attack, and occasionally the spasms are relieved by the burning of asthma powders. Induction of vomiting and high enemas may be of benefit. For eczema and urticaria, soothing lotions and salves should be used to allay itching and thereby assist in healing the already damaged skin.

Preventive measures against the development of allergy can be brought about by controlling the mother's diet during pregnancy; by avoiding unnecessary contacts with antigenic dusts and pollens; and, lastly, by avoiding the excessive intake of protein foods in early childhood and curtailing the promiscuous injections of antigenic substances.

CUMBERLAND COUNTY

E. S. Corson, M.D., Reporter

Holding its 114th Annual Session, the Cumberland County Medical Society met at the Bridgeton Hospital as guests of the Superintendent, Miss Ida Squarewood. The special reception room of the nurses' home was thrown open for the guests to lounge in the comfortable chairs and relax while listening to the interesting program.

The hostess, with her corps of nurses, manifested the old-time spirit of hospitality which has contributed so much to maintain the proper *esprit de corps* between the medical and nursing staffs of the hospital.

The President, Dr. Frank Sheppard, and the other officers, having been detained by hospital and court duties, Dr. H. G. Miller was chosen President and Dr. E. S. Corson Secretary pro tem.

Dr. W. Emory Barnett, of Temple University Hospital, spoke on the "Modern Concept of Gall-Bladder Disease", illustrated by lantern pictures. The discussion was highly technical, embracing the inflammations of the gall-bladder, their causes and progress; the infections with extensions to surrounding organs; the malignant growths, beginning on the gall-bladder or extending from adjacent organs; the formation of stones, with their progress, etc.

A vote of thanks was given the speaker, an indication of the high appreciation with which the lecture was received.

A committee was appointed to present resolutions on the death of Dr. H. H. Fritts, a highly esteemed member of the society.

The name of Dr. E. J. Thalheimer, of Vineland, was presented for membership.

The annual election of officers resulted in the choice of the following: President, Dr. J. H. Winslow, Vineland; Vice-President, Dr. Ray Simkins; Secretary, Dr. E. C. Lyon; Treasurer, Dr. H. H. Wilson; Reporter, Dr. E. S. Corson; Censor, Dr. M. F. Sewall; Delegate to State Society for 3 years, Dr. Leslie E. Myatt, all of Bridgeton. Dr. H. G. Miller was elected to the Nominating Committee of the State Society.

In January the society will meet at the Weatherby House, Millville.

After adjournment of the formal meeting, members of the society, with several guests from the neighboring societies, sat down to a tempting repast in the nurses' dining room.

ESSEX COUNTY

Earl LeRoy Wood, M.D., Reporter

The 117th Annual Meeting of the Essex County Medical Society was held in the auditorium of the Academy of Medicine of Northern New Jersey, Newark, Thursday evening, October 13, at 8.45 p. m. The President, Dr. James H. Lowrey, called the meeting to order and, seeing that the President of the State Medical Society, Dr. A. Haines Lippincott, was present, asked him to honor us not only by his presence but by an address.

Dr. Lippincott came forward and expressed goodwill and hopes for mutual progress through the new year.

The Secretary read the minutes of the last annual meeting and those of the June 9 regular monthly meeting.

The Treasurer submitted his annual report, with the recommendation of the Finance Committee that the dues for 1933 shall be \$10 net, for both

the County Society and the State Society. The Auditing Committee, Drs. Blackburn, Erler and Furman, reported the Treasurer's books audited and found correct. The President announced that the Council had concluded to omit, this year, a banquet, although successful the past 2 years. Reports of committees were made as follows:

Medical Education and Hospitals. Dr. Eagleton made a statement that the committee had considered appropriate matters, including that of Hospital and Clinic opportunities for members desiring but lacking them.

Maternal Welfare. Dr. Pannullo announced that a lecture course on obstetrics, for a subscription price of \$10, was attended by 91 physicians, and a profit of \$324 is held over to meet expenses of investigations on maternal mortality.

Membership. Dr. Sprague reported an increase of 32 members, and that about 72% of licensed physicians in the county are members of the society.

Ethics. Dr. Bingham reported 3 investigations without finding any gross faults in the accused member.

Publication. Dr. Bradshaw reported issuing 3 Bulletins during the year, each containing a call for Society meeting, a letter from an Ex-President and various Timely Topics.

Radio-Broadcasting. Dr. Stahl reported periodic short medical talks which, apparently, were well received.

Necrology. Dr. Tarbell reported publication of pamphlet containing 13 biographic sketches concerning: James Allen Blair, Lester Roscoe Davis, Charles Ehrgood Dowling, Simeon E. Duke, Paul Fitzgerald, Thompson Frazer, Samuel Halpern, Henry Gustav Krause, Louis Adolph Koch, Frank Wesley Lockwood, Archibald Mercer, Thaddeus Paczkowski and John Van Ess.

Welfare. Dr. Sherman reported our county's part in the work of the State Society Committee.

Post-Graduate Instruction. Dr. Satchwell reported as to the extent of Essex County's subscribing to the State Medical Society-Rutgers University Courses; an attendance of 269 member subscribers, as compared with 71 for the courses in 1931, and 51 for those in 1930.

George Washington Bi-Centennial. Dr. Pinneo reported that the Pathological Society had planted, in May, in front of the Academy of Medicine, 2 red-oak trees, as memorials to George Washington.

Woman's Auxiliary. Dr. Teimer reported that the Auxiliary now has 187 members.

Illegal Practitioners. Dr. Fort reported 5 letters of complaints which have been referred to the State Board of Medical Examiners.

Professional Guild. Dr. Pinneo reported the activities of the Guild, successful in legislation, now dissolved and its cash balance distributed to the constituent professional organizations of Medicine, Dentistry and Pharmacy, in which our society's share was \$506.58, now added to our Special Fund.

The President's Address was delivered by Dr. Lowrey, in which he reviewed, in an instructive and thorough way, the economic conditions in medicine today and their importance to members and the public.

New Business. Three amendments to the Constitution & By-Laws were adopted. On an amendment providing for the Nominating Committee reporting to the Council before publishing the ballot, Dr. Kraker reported the committee not ready to report. A recommendation from the Council reviewing the society action of December 1931, and the Resolution of the State Society, June 1932, ad-

vised passage of the following resolution. "*Resolved*, that the Essex County Medical Society, under provision of its Constitution (Article VII), relating to *ethics*, hereby defines the attitude it has taken, as follows: Members of this society, in mutual support and for the good of all, ought not accept appointments on the clinic or hospital staffs of hospitals which refuse to recognize the requirement for county society membership. This refers to the regular staffs."

The Tellers, Dr. Schulte, Crane, Erler, Hosp, Scott and Tutschulte, reported election of the following officers:

President, William H. Areson; Vice-President, Edward W. Sprague; Secretary, Frank W. Pinneo; Treasurer, Robert H. Rogers; Reporter, E. Le Roy Wood, Councilors: John F. Condon, John D. Moore, B. B. Ranson, Jr., and H. Roy Van Ness. For Nominating Committee of the State Society, Alfred Stahl, with A. C. Zehnder as Alternate. Delegates to the State Society: H. B. Epstein, J. Irving Fort, Ernest Genell, John W. Gray, James T. Hanan, F. R. Haussling, Paul H. Hosp, Raymond J. Mullin, John E. Parker, Guy Payne, Arthur C. Pilch, C. F. Rathgeber, Charles Rich, Alfred Stahl, Francis C. Weber and E. Le Roy Wood. Alternates: S. H. Baldwin, A. R. Bianchi, A. R. Chamberlain, H. N. Comando, G. W. Davies, Frank Devlin, F. C. Horsford, Sidney C. Keller, E. C. Klein, Jr., Otto G. Matheke, Paul E. Menk, Browne Morgan, Walter B. Mount, Arthur Richardson, W. H. A. Warner and Asher Yaguda.

The following new members were elected: Ralph I. Alford, H. Robert Berman, Michael J. Bonomo, Louis W. Bull, Louis Davis, William L. Deignan, Jacob L. Dreskin, Edward Fendrick, A. S. Finkelstein, Albert E. Frey, Harry Friedman, Maurice Kleinman, Robert M. Levinson, George A. Maggio, Stanley H. Mellen, John Richard Pavia, Edwin N. Riggins, A. H. Roberts, Raymond Lawrence Rusomanno, Daniel C. Sheehan, Earl Stage, Earl R. Symes, Reeves B. Van Duzer, Magdalena Wambganss, Leonard Zweibel.

The Academy of Medicine of Northern New Jersey Eye, Ear, Nose and Throat Section

A. Russell Sherman, M.D., Secretary

The regular monthly meeting of the Eye, Ear, Nose and Throat Section of the Academy of Medicine of Northern New Jersey was held Monday, October 10, at 8.45 p. m., the Chairman, Dr. E. A. Curtis, presiding.

Dr. Edgar P. Cardwell read a paper on "Unusual Neurologic Complications of Acute Otitis Media", in which he gave a detailed anatomic and pathologic classification of these complications and reported the case history of a patient who had presented several of them; and the subject was discussed by Drs. Norman N. Burritt, William F. Krone, H. B. Orton and James B. Shannon.

Clinical Society of Newark Beth Israel Hospital

Max Horn, M.D., Secretary

The regular meeting of the Clinical Society of the Newark Beth Israel Hospital was held on Wednesday, October 5, in the Nurses' Home. Dr. Leo Szerlip presided as Chairman.

In addition to the following case reports, interesting movies were shown on "Recent Observations in Russia" by Drs. Kummel and Kessler.

"Report of Case of Unusual Knee Injury" from

Service of Dr. Danzis. Patient, C. C., aged 20, on July 19, tried to jump on a moving truck. In so doing, he slipped and was dragged for a considerable distance, suffering multiple abrasions of his trunk, arms and legs, and the injury in point, a friction-burn of the inner aspect of the left knee, about 5 in. long and 4 in. wide, which completely denuded the knee-joint of all the structures from skin to bone, even shaving the periosteum from the lower end of the femur and upper end of the tibia. The inner aspect of the internal cartilage was exposed, lying between the bones. Dr. Eugene Parsonett saw the patient on admission, when there was remarkably little bleeding from the wound, most of the vessels probably having been sealed over by the burn. The wound was cleansed, ragged edges cut away, and packed with a loose iodoform gauze fluff. For the first 10 days, patient ran a septic temperature, for several weeks there were occasional periods of mild elevation in temperature, and for the past 5 weeks temperature has been normal. The wound, although at first superficially necrotic, gradually cleared up, became free from infection and filled in with granulating tissue. From the center of this granulating area, there was for 7-8 weeks a constant discharge of synovial fluid. This discharge ceased, and as soon as the temperature subsided the patient was encouraged to bend his knee, and at present has 20% function. The wound is entirely epithelialized, except for a small area 1 in. long $\frac{3}{4}$ in. wide. Patient is up and about, walks with a barely perceptible limp, and will probably gain greater function.

Dr. Henry Reich reported a "Carcinoma in Scar Tissue of 12 years' Duration". In 1921, the patient, 12 yr. old, was run over by an automobile; suffering an extensive injury to his left thigh. The femur was not injured but all of the skin and subcutaneous tissue, much fascia, and some muscle tissue on the anterior and lateral sides, were destroyed. The area was infected, and months elapsed before it could be cleaned up. Then, skin grafting was resorted to in order to cover over the defect. Some of the skin came from his healthy leg but much of it was taken from his friends. After 1 yr. in the hospital, the wound was entirely healed. Some of it was covered by the healthy skin of the grafts which had taken, but most of it was covered by scar tissue. Patient walked with a slight limp at first, but for many years has had no interference with function.

He remained in excellent condition until the spring of 1931, when he noticed a small bleb in the scar at the upper anterior part of the thigh. This soon broke and an ulcer formed. Wet dressings and salves were applied but the "sore" refused to heal. It grew very slowly and was painless. In March 1932 the character of the ulcer changed. There was a purulent discharge which had a foul odor, and the size increased rapidly.

On admission, March 29, 1932, examination revealed nothing abnormal except for the local condition. The left thigh, on its anterior and lateral aspects, was covered by scar tissue from 3 in. below the hip to the popliteal region. The scar was keloidal in spots, leathery tough, and not movable over underlying structures; no limitation of the knee or hip joints. Several areas of apparently healthy, normal skin were found within the scar. Over the outer part of the upper-third of the thigh was an ulcer about 4 in. diameter, and $\frac{1}{2}$ in. deep; base grayish in appearance, with some area of red granulation tissue showing; margins indurated but not raised above level of the surrounding

scar; discharge not marked but has a foul odor; regional glands not enlarged.

On April 4, the ulcer was excised, including some healthy scar tissue and the entire base. Pathologic examination revealed a slow-growing epithelioma and more sections were requested. On April 13, a larger area was excised and the second report again showed carcinoma. Despite these reports it was thought best to attempt to cover over the defect by means of pinch grafts, because the entire wound appeared so clean and healthy. We thought we had excised widely enough and felt that we might get away without a recurrence. On April 30, and again on May 17, small pinch grafts were taken from the right thigh and transplanted onto the wound on the left thigh. These grafts took beautifully and we were beginning to feel proud of ourselves. On June 13, however, a small area about the size of a pea at the site of the first skin graft began to ulcerate. Biopsy taken from this area again showed malignant, squamous cell epithelioma. Dr. Friedman advised application of radium and on June 20, radium treatment was begun. With these treatments the patient began to complain of ever-increasing pain. The ulceration progressed, and a fungating, friable mass made its appearance at the edge of the ulcer. The failure to respond to radiation, and definite increase in size of the ulcer, was accompanied by enlargement of the inguinal glands. Amputation was advised, but at first refused. The pain became so severe, however, that the patient finally consented and on July 11, a disarticulation of the hip was performed. Patient made a good recovery and there are no signs of recurrence.

"Case Report of Traumatic Rupture of Stomach", by Dr. Julius Newman. A young white, adult male, aged 26, was admitted to the hospital immediately after having been struck across the abdomen with a block of ice weighing approximately 250 lb. When seen on the stretcher, in the emergency room, he was cold, clammy and stuporous; no sign of injury on the abdomen; pulse 60, of good quality; respirations 45. Physical examinations disclosed no fractures; lungs clear; abdomen flaccid; and he was given shock treatment.

A little more than 2 hours after admission, he started vomiting and complained of abdominal pain. Examination at that time revealed a definite "acute abdomen". Laparotomy disclosed a traumatic rupture of the first portion of the duodenum; a rent along the superior border about 1½ in. long. In repairing this, an attempt was made to transverse the wound in order to avoid narrowing the lumen. Abdomen was drained and closed. Stomach was apparently empty of food at the time of injury, since there was no debris in the peritoneal cavity. This man made an uneventful recovery and went home on the fifteenth day.

This case is of interest because of the relative rarity of such an injury. We were fortunate in operating so shortly after the trauma occurred.

Dr. Szerlip spoke on "Sympathetic Ganglionectomy". In 1924, Royle and Hunter reported their work with spastic paralysis of cerebral origin. For the alleviation of this condition they employed sympathetic ganglionectomy and ramisection. At this date, this operative procedure does not find universal approval for the condition for which it was originally intended. Operated cases, however, showed marked improvement in the circulation of the limbs supplied by the excised sympathetic nerves and also definite dryness of the skin. For this reason, this procedure is now employed for various circulatory disturbances, particularly those

in which there is an element of vaso-spasm. It has, therefore, found a field of usefulness in the treatment of Reynaud's disease; in the vascular disturbances of the extremities following poliomyelitis and also in some of the earlier cases of thrombo-angiitis obliterans. In the latter cases it has no value, of course, where the pathology has progressed to the point where the vessels are completely obliterated. It has been found, however, that many of these patients have, in addition to the vascular pathology, an element of vaso-spasm, and if operated on early, sympathectomy seems to be valuable in avoiding amputations or limiting the extent of the amputation. It is also advised, when one extremity is involved in a case of thrombo-angiitis, that the opposite side be also operated on, since so many cases progress from one extremity to the opposite one.

The case reported was that of a young lady, aged 29, who had infantile paralysis at the age of 5 yr. involving the left leg. She had an astragalectomy performed by Dr. Royal Whitman, giving her a good stable foot, but she has been troubled for many years with circulatory disturbances, manifested by extreme coldness of the extremity and difficulty in keeping it warm during the winter. The foot was constantly moist. About November of each year she begins to have chilblains, which last throughout the winter and are very annoying. For the relief of these circulatory disturbances the patient was operated on Sept. 9, 1932, when a sympathetic ganglionectomy was performed, removing the sympathetic chain from the level of the second lumbar vertebra to the fifth and including 2 ganglia. There was an immediate response, so that directly after operation the limb on the operated side was definitely warmer and dryer than its fellow, and this improvement has persisted up to the present time. The effect that the operation will have on the chilblains is still an open question but it is anticipated that the condition will be improved or completely relieved.

The operation was performed through the incision originally described by Royle and Hunter, which corresponds closely to the usual kidney incision and will permit an easy dissection entirely retroperitoneal. Some surgeons prefer the transperitoneal route which has the one advantage of permitting a bilateral operation with only 1 incision; otherwise the retroperitoneal route has many advantages.

Recently, while in Toronto I had an opportunity to observe many cases in which sympathetic ganglionectomy had been performed. In that part of the country the winters are very much more severe and victims of infantile paralysis suffer a great deal more from the cold than they usually do here. The operation is, therefore, performed there almost routinely. It has also been observed that when the operation is performed in young children the ultimate growth of the limb is materially improved, and the eventual shortening is not so great as in the unoperated cases.

GLOUCESTER COUNTY

Henry B. Diverty, M.D., Reporter

The Gloucester County Medical Society held its annual social meeting on the evening of October 20, at the Pitman Golf Club, when the wives of the members were guests of the society.

An interesting program was enjoyed following an excellent dinner.

One of the features of the entertainment was a

humorous address by the Hon. Michael O'Brien entitled "Summary of the Causes of the Sino-Eustachian Conflict".

The Adelphia Quartette entertained with several numbers during dinner, and solos were sung by Miss Ethel Crain and Dr. H. L. Sinexon. Music during dinner and for dancing that concluded the program was provided by Morgan's Orchestra.

Dr. E. E. Downs, President of the society, presided as Toastmaster. Dr. Lippincott, State President, made a short address. Dr. Ulmer presented to Dr. B. A. Livengood a medal for the "outstanding achievement during the year by a member of the society". The award was presented in a humorous vein in recognition of his marriage.

Among the guests were: Benjamin Roberts, President of Pitman Kiwanis Club, and Mrs. Roberts; Joseph Michael, Vice-President of Pitman Kiwanis, and Mrs. Michael; Dr. and Mrs. Lippincott; Mrs. David Brewer; Dr. and Mrs. Oram R. Kline, Camden; Dr. and Mrs. H. Garrett Miller, Millville; Dr. and Mrs. Robert Gamon, Camden; and Mrs. Harry Stout, of Wenonah.

Members and their wives present were: Drs. Ulmer, Ashcraft, Sherman, Hollinshead, Rhoads, Downs, Weerns, Sinexon, Wood, Knight, Ristine, Livengood, Moore, Sheets, Chalfont, Stout and Diverty.

HUDSON COUNTY

Harry J. Perlberg, M.D., Reporter

The Annual Meeting of the Hudson County Medical Society was called to order at the Carteret Club, in Jersey City, at 9 p. m., October 4, by President Brooke.

Dr. D'Acerno requested that medical men and members of the society only be present, and when this matter was straightened out, the motion to that effect was seconded and carried.

Dr. Maurice Shapiro moved that the society proceed with the election of officers as outlined in the President's message; in other words, that any member could go out of the meeting at any time he wished, in order to vote.

Dr. Quigley thought that plan inadvisable, as it might result in confusion, and he felt that after action on the Executive Committee report was over, the voting could proceed.

It was finally decided that voting would take place at 11:30 p. m.

Dr. Perlberg then read the minutes, in condensed form, but covering all transactions of the Executive Committee during the summer of 1932, as set forth in the Bulletin.

Dr. Brooke then asked what disposition the society wanted to make of the resolutions presented by the Executive Committee, regarding the North Hudson Hospital controversy, which were as follows:

Whereas, There has been a controversy between the former staff and the Board of Governors of the North Hudson Hospital which has resulted in the former staff, as a body, being no longer in attendance at the Hospital, and

Whereas, The Executive Committee of the Hudson County Medical Society has come to the conclusion, by an unanimous vote, that the position of the former staff of the North Hudson Hospital has been fundamentally sound and that they have acted as a group in an ethical manner for the best interests of medical organization,

Be It Resolved, that the Executive Committee present to the Hudson County Medical Society for its action the following resolution:

Resolved, that the Hudson County Medical Society condemns the practice of Lay Governing Boards, which ignores the medical staff in medical management, and that it gives its moral support to the former staff of the North Hudson Hospital for their stand in regard to the management of medical affairs of a hospital by its medical staff and that it assures the medical staff concerned of the support of the Hudson County Medical Society in the maintenance of these principles.

Dr. Pyle moved that the resolutions be accepted.

Dr. Evans reviewed in detail what he knew about the North Hudson Hospital situation, in its entirety, reading letters from the Hospital's Board of Governors and the American College of Surgeons, with reference to some points. He said that he had known very little about the controversy going on prior to June 30, when the Board of Governors asked him to consider the situation, to take charge of patients in the hospital, and to see that they were being given proper and necessary medical attention. He consented to do so, for humanitarian reasons. However, when certain men were asked to operate on certain patients, those doctors did not appear. Eventually, therefore, a *new staff* had to be formed in the hospital. After reading letters from the American Medical Association, regarding acceptance of the By-Laws presented by the Board of Governors of the North Hudson Hospital, he felt that there was some justification for the Governors' having drawn up a complete set of By-Laws subject to no alteration by the Staff. Following presentation of the new By-Laws, began the campaign to discredit the hospital organization. *Dr. Evans* went on to say that members of the Executive Committee might have reached a different opinion regarding the situation had they called in some of the "old timers" in the North Hudson Hospital who know all about former conditions and recent developments. He believed that the Board of Governors embraced a group of competent, sincere, and upright men; and that, since they were men well-informed regarding hospital management, they were justified in what they did.

Dr. Pyle stated that when a similar controversy arose in Newark, resolutions denouncing the procedure were adopted and published; and, he went on to say that the Executive Committee did not attempt to solve the problems of the North Hudson Hospital but attempted only to pass on these resolutions.

Dr. Kuhlmann presented, in detail, his opinion of the entire situation, and ended by saying that he was entirely against adopting the resolutions presented to the Society from the Committee.

Dr. Reitnauer gave his opinion and ended by stating: A vote of acceptance of this cautiously worded and misleading resolution can do the profession no good, but may easily become the cause of serious disruption within the Society, for the reason that, while this resolution has been made to appear as presenting a case of *doctor against layman*, its introduction here will be made, in effect, one of *doctor against doctor*.

Dr. Quigley then spoke about this North Hudson Hospital controversy and stated that—much of what *Dr. Evans* presented, with the exception of the letters read, has been told to him by biased people, and that he has no unbiased information concerning the situation. He stated further that this problem is not a local one, but one of state-wide interest. Referring to the resolutions presented, he stated that while the resolutions say nothing

about the status of former Staff members, if adopted, their status certainly is not determined and cannot be determined by this Society except by preferring charges. He went on to say, further, that the former Staff was *ousted* because it refused to subscribe to a set of By-Laws which it neither initiated nor formulated.

Dr. D'Acerno then spoke, stating that he was firmly opposed to any resolution condemning the managers of the North Hudson Hospital, or any other hospital.

Dr. Babarito announced that, after listening to both sides, he felt that both had missed the main issue, which is—a question of principles, wherein the By-Laws should be accepted *in toto*; or, a question of principle again—whether *any lay Board* has the right to oust a professional Staff without due consideration.

Dr. Waters suggested that the resolution be divided into 3 parts, for separate consideration.

Dr. Larkin favored the resolution and felt that in voting, for or against, one would have to decide whether to support or oppose his own Executive Committee.

Dr. Maras felt that it was about time, the members of the North Hudson Hospital's former Staff should come to the Hudson County Medical Society with its problem.

Dr. Perlberg read a letter from *Dr. M. Shepard*, regarding the establishment of a "Medical Group" in Harrison. A motion was made to refer the matter to the Welfare Committee. Motion seconded and carried.

Dr. Chapman spoke at length about the poor water supply of Jersey City, a matter that had been brought to his attention by several persons. He moved that a special committee be appointed to act in conjunction with the Jersey City Medical Society, and to bring the matter before Commissioner Fagan. Motion seconded and carried.

The Board of Tellers reported the results of the election, as follows: President, L. A. Pyle; Vice-President, Henry Klaus; Treasurer, Charles B. Kelley; Secretary, B. T. D. Schwarz; Reporter, Charles Sirken; Trustee (3 yr.), E. J. Chapman; Censor (3 yr.), J. M. Cassidy; Audit Committee (3 yr.), George Mangone; Publication Committee, H. B. Ainsley, I. L. Gordon, J. S. Reitnauer, J. C. Taity; Member State Society Nominating Committee (1 yr.) S. J. Sweeney, Alternate, H. Alexander; Committee on Constitution and By-Laws, W. L. Barbarito (3 yr.), A. P. Haskin (2 yr.), F. Quigley (1 yr.); Delegates to the State Society, H. Alexander, W. N. Barbarito, J. M. Cassidy, E. J. Chapman, C. B. Kelley, E. J. Luippold, J. Nevin, B. T. D. Schwarz, Robert Stockfish, H. F. Tidwell, L. W. Brandenberg, Henry Christian, L. W. Dodson, W. G. Doran, M. Hernandez, T. A. Higgins, E. H. Kiely, J. S. Maradas, W. W. Maver, A. P. Reitman, W. Williamson, S. W. Woodruff, Joseph Shapiro, J. Visconti; Nominating Committee (1933), W. N. Barbarito, H. C. Benjamin, E. J. Chapman, C. B. Kelley, F. Pearlstein.

On the resolution concerning the North Hudson Hospital, the vote was as follows: approving the resolution, 171; against the resolution, 82.

Meeting adjourned at 2.15 a. m.

Clinical Society North Hudson Hospital

P. D'Acerno, M.D., Secretary

The regular meeting of the North Hudson Hospital Clinical Society was held Tuesday, October 11, with *Dr. C. L. De Meritt* presiding and 21 members present.

Dr. Tannert presented the hospital report for the month of September, showing 166 admissions; 9 births; 95 operations. Of the 169 patients discharged, 80 had recovered; 71 improved; 9 died—2 within 48 hours.

Dr. A. Reiman thoroughly discussed a case of "Acute Fulminating Vincent's Angina".

Dr. P. D'Acerno reported a case of "Traumatic Rupture of the Symphysis Pubis during Labor", as follows: L. S., aged 26, admitted on July 15, 1932, with the complaints of tenderness over the symphysis pubis, inability to spread the legs, bleeding, and lacerations of the vagina and perineum, following operative delivery at home. Her family history was negative as to pulmonary, cardiac, renal, gastro-intestinal and neoplastic diseases, but personal history showed: (medical) scarlet fever, diphtheria, measles, mumps, chicken-pox, tonsillitis; (surgical) tonsillo-adenoidectomy, left mastoidectomy, appendectomy; (gynecologic) onset of menses at 13 but regular periods not established until the age of 18, when the interval was of 28 days and moderate flow lasting 2-3 days; (obstetric) gravida—1, para—1, child born dead, following forceps delivery. Patient due to deliver on July 22, 1932. Labor began on Wednesday, July 13, in the early morning hours, and continued until early Friday evening, July 15, apparently failing to make progress. Membranes had not ruptured. Position R. O. P. Accoucheur then attempted delivery by forceps. During delivery a "snapping" noise was heard, following which the child was delivered dead. Previous to occurrence of separation of symphysis pubis no progress could be made, even with forceps. Patient brought to hospital for treatment and vaginoperineal repair.

General physical examination showed no abnormality in the head, neck or thorax; abdomen soft; uterus palpable above umbilicus and firm; spleen, liver and kidneys not palpable; symphysis pubis separated about 4 cm. and tender. Vaginal examination disclosed a laceration through the anterior vaginal wall, running upward on the right side of the urethral canal to the separated edges of the symphysis pubis; thus constituting a compound fracture of the symphysis cartilage. The urethra was intact and there was no lesion of the bladder, as shown by catheterization. The posterior vaginal wall showed a laceration extending from the fourchette to the cervix, and there was a second-degree laceration of the perineum with several minor vaginal wounds.

Patient was immediately operated upon, under gas-oxygen-ether anesthesia; a complete repair of vaginal lacerations. A long cigarette-drain was inserted into the joint and a Pezzet catheter into the bladder. Then, a circular strap of adhesive plaster, 15 cm. wide, was snugly tied around the pelvis. On following day, the patient was laid on a Bradford frame.

A radiogram taken on the third postoperative day showed a separation between the pubic bones of 3.5 cm. The sacro-iliac syncondrosis showed increased spacing, particularly on the left side, and the fifth lumbar vertebra was sacralized. Cigarette-drain was removed on the fourth day; lochia rubra, without foul odor, and there was no purulent drainage from the sinus, but the patient felt uncomfortable and complained of a numb feeling in the external genitalia, pelvis and thighs—especially the left thigh. Therefore, we came to the conclusion that the Bradford frame was not giving the results expected and ordered that the patient be put in a hammock sling, suspended on a Balkan frame by a counter-weight of 48 lb. At the time

of rupture reduction, to avoid injuring the urethra, special care was taken to draw it downward, away from the symphysis, by means of short metal catheter inserted into the urethral canal. Patient then became decidedly more comfortable; pain at the symphysis disappearing and that in the sacro-iliac region having decreased. A week later, another radiogram showed reduction of the symphysis separation almost to normal, but the right pubic bone appeared displaced upward about 0.5 cm. (Dr. Bell) Traction was then applied on the right leg, and a subsequent radiogram, on July 29, showed that the upward displacement of the right pubes was not over 3 mm. On August 7 patient was temporarily removed from sling and another radiogram showed "separation of the symphysis and the relations were not as good as in the previous examination when patient was in the sling" (Dr. Edwards). She was again put on the sling for 12 days. On August 19, patient was taken out of the hammock and advised to rest on her side; the same day, a sacro-iliac belt, of the Mayo type, was put around her pelvis and she was allowed to get up and attempt a few steps. The following day, she was able to walk about, and in a week (August 26, exactly 6 weeks after admission) she was discharged as cured; the radiogram taken then showing fair apposition of the symphysis pubis and normal sacro-iliac joints. My last examination (August 23), as recorded, reads: "Perineal lacerations completely healed; vaginal canal perfectly healed; no scars palpable at site of the lacerations. The uterus is about the size of 2½ months' pregnancy (subinvolved). Cervix admits tip of the finger and presents a laceration of its left side, about 1 cm. in length. Fornices are soft and free from masses. Symphysis pubis seems to be fairly well united by a firm band of fibrous tissue. Scanty mucous vaginal discharge."

COMMENT

The main points of interest were:

(1) The rupture was caused by forcible traction on the fetal head in R. O. P., i. e., with its long axis in line with a shorter diameter of the pelvis, resulting in a wedge effect between the pubic rami, with consequent disruption of the joint.

(2) Absence of infection, in spite of the presence of a compound fracture communicating with the vagina.

(3) Management of the condition by means of circular compression, obtained by suspending the patient's pelvic girdle in a special sling connected with a Balkan frame; a method which has proved far superior to that of surrounding the pelvis with a circular strip of adhesive plaster and allowing the patient to lie on a Bradford frame, inasmuch as the latter method tends to increase the separation, as has been shown by roentgenograms.

(4) Repeated radiograms are of paramount importance, because they show the exact degree of apposition and alignment of the bones, and afford diagnostic and therapeutic control of the lesion.

Dr. Ishkanian, in discussion, pointed out the dangers of misapplied forceps. Had this patient been seen early a pubiotomy could have been done.

Dr. Kuhlman stated that the sling method of treatment is best and that in cases of this type the patient usually gets well. He added that, should this treatment fail, he would drill the fragments and pull them together with fascial strips, and would not use a bone graft. He favored symphysiotomy over pubiotomy because of resulting increased diameters.

Dr. D'Acerno, in conclusion, maintained that in this instance, on account of disproportion and funnel-type contracted pelvis, cesarean section was indicated. He agreed with *Dr. Ishkanian* that a pubiotomy was to be preferred to a symphysiotomy. In the former, the pelvis is sufficiently increased in diameter without injury to the sacro-iliac joints, and there is less danger of hemorrhage or injury to bladder and vagina.

Dr. V. A. Del Vecchio reported a case of "Lung Abscess". Mrs. B. M., aged 48, native of Austria, was admitted through the Emergency Room on August 4, complaining of cough, productive of foul sputum, and fever; for the past year, a persistent productive cough, which became worse 4 weeks prior to admission, when she was confined to bed; very often her sputum was blood-tinged. At one time she had an hemoptysis of about 1 oz. bright red blood, and there was severe pain in the interscapular and lumbosacral regions. One week before admission the cough became paroxysmal and each paroxysm was followed by expulsion of considerable quantity of very foul, thick sanguinopurulent sputum. Since onset of present illness she had been complaining of profuse night sweats, considerable perspiration even during the day, chills, and prolonged low grade temperature; in addition, there was a history of dyspnea on exertion, edema of the ankles which disappeared after rest, some loss in weight, and glycosuria. Chest examination revealed numerous râles at both apices with signs of abscess cavity at left apex. Both bases were clear.

Temperature on admission was 101.8°; blood pressure 108/72; blood count: Hb. 85%; W.B.C. 5450, with 69% polys; urinalysis showed faint cloud of albumin and small trace of sugar; blood chemistry revealed 300 mgm. blood sugar, otherwise normal. Sputum negative for tuberculosis. Portable x-ray study, on admission, showed right costophrenic sinus obliterated by thickened pleura and some fluid. Just above the right diaphragm there was a localized peribronchial and parenchymal infiltration suggestive of cavity formation. Left lung showed increased hylie shadow at upper portion, and in the upper lobe, from apex to first interspace, increased density. There was only slight infiltration of the lower part of the lung. Radiographic impression was that of pulmonary tumor, although pulmonary infection could not be excluded. Wassermann negative. Suggestive diagnosis of: (1) lung abscess at left apex; (2) advanced pulmonary phthisis with cavitation; or (3) diabetes mellitus.

In hospital she had been running a low grade fever, at times irregular and at other times showing a tendency to evening rise—but never returning to normal. During the first 4 weeks temperature reached a maximum of 103° on 5 occasions, and during those periods the general condition became very poor; cough and expectoration increased, and at times became bloody. The following 3 weeks temperature never went above 101° and frequently touched normal. Temperature curve became very erratic during the eighth week, ranging from normal to 103°. Pulse at all times followed the fever curve proportionately.

Sputum examination on August 18 showed pus cells, degenerated epithelium, mucoid material, granular blood pigment and necrotic detritus. The finding of hyperchromatic epithelial cells suggested neoplasm with necrosis and secondary infection, but sputum examinations to date have failed to show *B. tuberculosis*.

Subsequent roentgenologic studies of the chest were made with the following findings: August 8. A 6 ft. plate showed a lung abscess in the left upper lobe but the very marked hylie and peribronchial infiltration in the region of the left upper lobe still suggested the possibility of pulmonary malignancy. August 16. Left oblique view of chest showed definite cavity formation in the left upper lung field. September 9. Anteroposterior view showed increasing infiltration of the left lung; abscess still demonstrable; right lung negative. September 19. Decreasing infiltration of the upper left lobe; right lung still negative.

Treatment. Aspiration of abscess cavity was tried on August 22, without success. She has been in bed since admission. High caloric diet, with insulin, given to control the diabetes. Blood sugar on September 11 was 120; urine negative. Secondary anemia has been treated with intravenous ferro-arsen with copper. On advice of the surgical service, emetine hydrochloride has been given intravenously.

Present status. Her general condition is much improved; cough and expectoration considerably less; appears quite comfortable, and the foul odor which the sputum had on admission in great measure has disappeared.

Bayonne Hospital Clinical Conference

The regular Clinical Conference meeting of the Bayonne Hospital was held Monday evening, October 3, in the staff room. *Dr. M. J. Weiss* acted as Chairman, in the absence of *Dr. Donohoe*.

The deaths of the month were reported and discussed.

Dr. Marks, for the Medical Service of *Dr. Weiss*, reported the following case histories:

Case 1. F. A., aged 17, white male, came in complaining of pain in the chest, radiating down both arms, of 1 month's duration. He gave a history of rheumatism in the left leg 3 yr. before admission, at which time he was told that he had also a bad heart. Examination disclosed a marked pulsation of the cervical arteries accompanied by a thrill; no venous engorgement; heart greatly enlarged; apex impulse in fifth intercostal space in the mid-axilla; marked systolic thrust and diastolic impact; loud to-and-fro murmur over aortic area, transmitted to apex, where it obliterated the first sound; second sound at aortic area absent, and at pulmonic area faint; marked pulsation of all peripheral arteries; Corrigan pulse; capillary pulse; and pistol-shot over femorals, with a Duroziez. Blood pressure of right arm was 168/90; left arm—154, changed at 90, but audible to 0. Blood count and urine negative. Fluoroscopy: Aortic type of heart, very large, left border reaching to left axilla. Transverse part of the aorta was prominent and pulsated vigorously with systole of the left ventricle. Ascending part of the aorta was widely dilated and also pulsated with ventricular systole.

Diagnosis was rheumatic heart disease with aortic insufficiency and regurgitation; and, ultimately, aortic aneurysm.

Case 2. A. Z., aged 47, white female, entered with complaint of dyspnea, orthopnea, fatigue, swelling of abdomen of 1 month's duration; 2 yr. previously she had rheumatism affecting the knees, ankles and shoulders. She was extremely dyspneic, orthopneic, cyanotic and had an icteroid

tinge of the sclera. Visible pulsation in the third left intercostal space; apex impulse near the mid-axillary line; diastolic thrill at apex; cardiac dullness increased to right and left; loud, blowing, harsh, systolic murmur at apex, transmitted to axilla and along sternum; diastolic murmur at apex. There was a ventral hernia over site of an old appendectomy. Liver reached down below level of umbilicus, and was smooth, firm and not tender. Spleen reached 4 finger breadths below costal margin. Shifting dullness present. Both legs edematous and cyanotic. Radiograph showed enlargement of liver and spleen, pericardial effusion, and edema of the lungs. Icteric index 17; Vanderburgh direct delayed; indirect 0.2; Wassermann and Kahn +; blood count normal; urinalysis, albumen 3+ with granular casts. Temperature never went above, but always hovered about 101°. She complained at times of abdominal distress. Opinion was that liver and spleen were down because of visceroptosis, and that the cardiac condition was of congenital origin.

Diagnosis was mitral insufficiency and stenosis, rheumatic in origin; and, cardiac failure with chronic passive congestion of lungs, liver and spleen.

Dr. Madaras reported for the Surgical Service of Dr. Donohoe:

Case 1. A. S., aged 11, white male, was entered with a history that 3 days before he began vomiting and had severe pain of lower right side of abdomen radiating upward and backward to the kidney region. Moderate distension was noted. Palpation revealed marked tenderness over epigastrium, particularly over McBurney's point, radiating to the right lumbar region where a distinct mass was visible and easily outlined at the lower pole of the kidney. Marked hyperesthesia, rigidity and rebound tenderness over the right lower quadrant, accentuated with movement of the right leg. Marked generalized tympanitis present.

Laboratory—Blood count: Leukocytes 20,000 polys 72%; lymphocytes 26% eosinophiles 2% Urinalysis: amber, turbid, alkaline, sp. gr. 1.020, albumin +1; saturated with phosphates and triple phosphates; very occasional epithelial and white blood cells; rarely red blood cells.

The question of diagnosis concerned a perinephritic abscess or appendicitis. Dr. Marcus was of the opinion that there was some kidney involvement and he was in favor of operation, which was done.

On opening the abdomen, there was no free fluid. The small intestines were packed away, exposing the cecum, and an abscessed cavity was found, the appendix retrocecal, ruptured, gangrenous and pointing upward and backward, adherent to the posterior parietal peritoneum in the region of the lower pole of the right kidney. The appendix was removed, cavity drained, and after a rather stormy convalescence, the patient is showing a steady, gradual but satisfactory improvement.

Postoperative diagnosis was acute gangrenous appendicitis with peritonitis.

Dr. Marcus reported for the Urologic Service of Dr. Woodruff:

Case 1. W. R., aged 45, appeared in the Skin Clinic with an erosion on the shaft of the penis, extending to the glans, and with lesions in the inguinal region. Wassermann and dark-field examinations were both negative. He was referred to the Urologic Clinic for treatment and while in the hospital, examinations for Ducrey's infection

were negative, as was also the examination for Donovan bodies. Patient was put on tartar emetic with the idea of the condition being possibly granuloma inguinale. There being no signs of improvement after several weeks of treatment, he was then treated with wet dressings of copper sulphate and immediately began to improve. At this presentation, lesions on penis are all healed and the inguinal lesions are almost obliterated.

Case 2. A. N., aged 10, white male, 2 days previously, while playing, was accidentally kicked in the perineum by a playmate. The blow came from the rear, hitting him at the bulbous portion of the urethra. He suffered considerable pain and stopped urinating. A private physician was called during the day, who catheterized him successfully on the first attempt; later catheterized again and obtained a small amount of clear urine; and next day the boy was sent into the hospital.

Examination showed swelling of the scrotum and penis, and ecchymosis of the perineum, sharply delineated within the boundaries of the triangular ligament and about the rectum. On catheterizing, 1000 c.c. of clear urine was obtained. Retention catheter was installed and on second day worked its way out; replacement was attempted without success.

Suprapubic cystotomy was done and the edema subsided, but 2 days later temperature jumped to 106° with marked edema of the scrotum and penis. Incision was made in scrotal skin and perineum and the patient's temperature was reduced. However on the seventh day there was a total suppression of urine, followed by death. At autopsy rupture of the bulbous portion of the urethra was found and the kidney macroscopically showed no lesion but microscopically showed an acute glomerulitis with edema of the tubes, which caused pressure on the blood vessels. There were no signs of hemorrhage. Death was caused by acute uremia.

Case 3. T. C., aged 2½ yr., white male, was admitted with the history that for the past 5 weeks, the mother had noticed that the child was apathetic, had no appetite, and the left side of his abdomen was swollen. There was a large mass in the left flank, taking up the left half of the abdomen. Injection of skiodan for radiography showed a normal right kidney and the left kidney on the crest of the pelvis with a mass above it. The child was cystoscoped and a pyelogram of the left kidney taken. At operation a large tumor, attached to the kidney, was separated with difficulty, and the patient died from shock within a few hours.

Dr. Antopol, pathologist, stated that this tumor surrounded the portal and splenic veins, and also completely encircled the renal vein, but there was no definite tumor thrombosis of the veins.

Case 4. M. L., aged 39, white female, was referred to the hospital one week previously complaining of pain in the back and left shoulder. She had a very large left kidney, irregular in outline, and, as a pyelogram showed, severely infected; with no function whatsoever on cystoscopic examination. Because of a history of tuberculosis in the family, and the urologic findings, the diagnosis of tuberculous infection of a dead left kidney was made.

Operation—Nephrectomy, performed 4 days ago, showed a tuberculosis of the left kidney. General condition excellent; temperature and pulse normal.

Case 5. E. M., aged 48, white male, entered because of severe attacks of acute retention of

urine; had to be catheterized by family doctor 4 times in the past 6 months. Patient said the urine had been foul for a year and he had not been able to completely empty the bladder. Admitted with a full bladder and about 1000 c.c. were removed by catheter. Cystoscopy and cystograms showed a tremendous diverticulum of the floor of the bladder.

Operation—After proper preliminary preparation, with kidney drainage, the patient was operated upon and diverticulum removed. His general condition, after 10 days, is good; temperature and pulse practically normal; is draining well. Specimen of diverticulum shown with cystograms.

Meeting adjourned at 11 p. m.

MERCER COUNTY

A. Dunbar Hutchinson, M.D., Secretary

The Mercer County Medical Society met in the Carteret Club on the evening of October 12, with President Wilbur presiding.

The usual order of business was suspended and the speaker of the evening was introduced by Dr. Wilbur; this introduction being preceded by a detailed account of an incident that took place on the foot-ball field at Peddie Institute, in which the speaker was dangerously injured but finally resuscitated by Dr. Wilbur; all of which was more thoroughly recounted by the speaker, Dr. Harold W. Jones, Associate Professor of Medicine in Jefferson College.

Dr. Jones delivered a practical address on the subject of "Diseases of the Blood", with lantern slide illustrations. A practical, intensely interesting talk, with emphasis placed only upon the salient features of blood diseases, differential diagnosis, transfusion and results, engaged the undivided attention of the large audience. An interesting discussion followed, in which Dr. Jones more thoroughly detailed certain phases of this subject. A rising vote of appreciation was tendered.

Resuming the regular order of business, the minutes were read and approved.

Dr. North, Treasurer, then explained the temporary reduction in State Society dues, with accompanying rebate.

Dr. Harold K. Doranz was elected an Associate Member.

Following the reading of a communication from Dr. A. Haines Lippincott, requesting the election of a Committee on the "Plan for Accrediting Specialists", considerable discussion arose relative to the purpose, legality, penalty and the ultimate results to be obtained, finally terminating in the passage of a motion, setting aside the December meeting for a more enlightened discussion before action on this adjunct to the maintenance of conditions within the precincts of the profession.

The usual committee, consisting of the officers of the Society, was authorized to proceed with the arranging for the Annual Banquet, to be held November 10.

The application of Dr. Charles C. Cohen for Active Membership was read and referred to the Membership Committee.

The applications of Drs. Edmund W. Burroughs, N. H. D'Gianni, G. F. Hutchinson, Robert Forer, A. E. Ogden, and B. B. Scasserra, for Associate Membership, were read and referred to the Membership Committee.

MIDDLESEX COUNTY

Samuel Gordon Berkow, M.D., Secretary

September Meeting

The regular meeting of the Middlesex County Medical Society was held September 28, at Pfaff's Restaurant, Metuchen, at 9 p. m., with Dr. Robert L. McKiernan presiding; 44 members and 4 visitors were present.

Dr. Howley reported that the picture of the Middlesex County Medical Society's members will not be obtainable at this time because the migratory photographer who was to furnish the picture hath migrated.

Dr. McKiernan reported that his committee had met with the Funeral Directors' Association of Middlesex and Somerset Counties, and he read a pronouncement, admonishing physicians as to proper methods of performing autopsies; stating the length and contour of incisions of the abdomen and cranium, directions for tying vessels, etc.

Discussion by Drs. Haywood, McGovern, Fishkoff and Henry, Jr., brought out criticism of the procedure advocated, and Dr. Kramer moved to delete the reflections upon the medical profession. Dr. Messinger stated that harmony was not possible because the scientific attitude of the medical profession inevitably will clash with the aims of the undertakers. Dr. Adrian Urbanski advised the necessity of educating people regarding autopsies.

Dr. Nafey reported for the Committee on Ethics, that the present machinery for creation of members is cumbersome, and improvement is necessary. He recommended an amendment to create *associate members* for a period of 1 year, at which time associate members would be eligible for full membership; and his motion, seconded by Dr. Berkow, was carried.

Dr. Johnson, a Delegate, reported on the State Society Convention, and emphasized the provisions for public health work.

Dr. McKiernan felicitated several members on their appointment to State Society committees.

Dr. Nafey reported a reduction of State Society dues for this year.

A communication was read from Dr. A. H. Lippincott, President of the State Society, on a plan for controlling specialism. On motion by Dr. Klein, the requested action was deferred to the next meeting.

Dr. McKiernan introduced Mr. Lewis Compton, Director of the Emergency Relief Committee of Middlesex County, who spoke on medical problems encountered by his committee. (1) Hospitalization of the indigent sick among registered unemployed, whom he termed "the new poor". (2) Medical attention. He stated that his committee desired a standardized fee for medical attention to the registered unemployed, both as office patients and for calls to the home. If a doctor is called to attend a registered unemployed person he should get the approval of the Municipal Relief Director before hospitalizing, except in an emergency. Mr. Compton stated that the medical profession should not carry the entire relief load, without compensation, but pointed out the fact that municipal directors have absolute charge of relief work.

Dr. Johnson asked what reduction of hospital fees are accepted and what is being paid to doctors in other counties.

Mr. Compton: Hospital fees are not standardized. Two of the chief hospitals in the county have reduced their fees to the Emergency Relief Committee. Professional Social Service workers in Perth Amboy and New Brunswick check upon patients sent to the hospital. But, largely, the committee depends upon the doctors.

Dr. Kramer: Is any one in this county suffering from want of medical care?

Mr. Compton: I have heard no complaints.

Dr. Kramer: I am opposed to municipal assistance toward cheap medical care. In my opinion physicians should receive no remuneration for charity work.

Dr. McGovern: What are the variations in the medical charges?

Mr. Compton: In the Carteret district a nominal fee is charged. In other places the standard fees, I believe, are \$2 for office calls, and \$3 for home visits.

Dr. Edward Klein spoke on underbidding for medical work. He proposed a special committee to present this society's views to the Emergency Relief Committee.

Dr. Spencer cited the fact that he and 2 other doctors in Woodbridge are doing, and have done, relief work free of charge, but recently 2 men were appointed to do this work at a small fee. He suggested that one be paid a fair annual salary to take care of the indigent sick and if this one man cannot handle the entire work the other physicians in Woodbridge would do so without charge.

Dr. Messinger vouched for the views expressed by Dr. Spencer.

Dr. Kramer proposed that patients should be taken care of by organized poor departments and, where this is not adequate, to have the rest taken care of without charge.

Mr. Compton: There was no call for medical fees to be paid out of the relief funds until 1931. Then calls came from the doctors who felt they could not themselves carry the full burden of the increasing relief load.

Dr. Wilentz: The volume of unpaid work is so great that doctors are unable to afford the time. If the Emergency Relief Committee feels that it can pay a certain amount, it should be accepted.

Dr. Adrian Urbanski: Doctors should not be too proud to accept fees. The Emergency Relief Committee pays every one else for service or goods supplied. As City Physician of Perth Amboy, I receive \$3 a day and am expected to do an amount of work which has grown tremendously during this emergency.

Dr. Johnson proposed adequate pay to city physicians and additional assistance if it is necessary.

Dr. Kemeny: The system in Carteret is that the registered poor receive slips from the Overseer of the Poor, and may go to any physician; and, the physician sends these slips to the relief director and is paid.

Dr. Silk proposed a uniform rate to the individual physicians, and also the employment of full-time physicians.

Dr. McKiernan stated that he would appoint a special committee to deal with this problem. He read a clipping giving the view of Mr. Filene on this subject. After the meeting he named the following committee: Drs. Adrian Urbanski, Edward Klein, Morris, Wilentz, Pansay, Hunt, Messinger, Spencer, Longbotum, Feher, Brown, Toy, Forney, Weber, Smith, Mark and Berkow.

A collation was served.

October Meeting

The regular meeting of the Middlesex County Medical Society was held October 26, at Pfaff's Restaurant, Metuchen, at 9 p. m., with Dr. Robert L. McKiernan presiding; and 38 members present.

Application for membership of Dr. S. M. Lanzo, Matawan, was referred to the Ethics Committee. Applications for transfer to this society were received from Drs. Anne Horoschak and M. J. Lorenzo which were referred to the Ethics Committee.

The plan for accrediting specialists and controlling specialism was read by the Secretary. The following were elected to the County Society Committee for a period of 3 years: Dr. J. J. Mann, Perth Amboy; Dr. Fred L. Brown, New Brunswick; Dr. Lawrence P. Runyon, New Brunswick. President and Secretary are members of this committee, *ex-officio*.

Dr. Marshall Smith read the resolution of his Special Committee:

RESOLUTION DRAWN UP BY THE RESOLUTIONS COMMITTEE AT A MEETING HELD OCTOBER 14, 1932, AND
RESPECTFULLY SUBMITTED TO THE MIDDLESEX
COUNTY MEDICAL SOCIETY FOR APPROVAL

Whereas, the County Emergency Relief Committee has requested that the Middlesex County Medical Society decide on some method of procedure in regard to payment of physicians for services rendered to the indigent patients from the Emergency Relief Fund, and inasmuch as there is a strong sentiment in the society that some such decision should be made, realizing that conditions as they exist today comprise emergency, and

Whereas, the Middlesex County Medical Society prizes the ideals and traditions of the medical profession, recognizing its responsibility for emergency relief of indigent sick, and,

Whereas, the payment of fees for medical services to individual physicians from state and subsidized funds, relief or otherwise, represents a step toward state and socialized medicine, which is against the best interests of organized medical practice,

Therefore, Be it resolved that the Middlesex County Medical Society express itself as opposed to payment of fees from Emergency Relief Funds to individual physicians for the care of indigent sick, and that the society expresses its willingness to continue to care for the needy as they have in the past, with no compensation whatever,

Except as follows:

(1) In cases of city or county physicians or their temporary appointed assistants.

(2) In cases of rural communities in which special problems can be shown to exist.

(3) In exceptional cases where the individual physician feels that compensation is necessary because of his extreme economic necessities, in which instances the fee shall be the full regular charge for such services in the community in which he practices.

The Committee,

(Signed)

Marshall Smith, Chairman
F. L. Brown
S. E. Kramer
Edward Klein
Joseph S. Mark
G. W. Tyrell

This resolution was adopted.

An amendment to the Constitution, to create Associate Members, was read. On motion by Dr. Frank C. Johnson this amendment was referred to the Ethics Committee with the request that it be recast.

The scientific paper was presented by Dr. Herman Goodman, Professor of Dermatology, New York Skin and Cancer Hospital. His subject was "Treatment of Common Skin Disorders in General Practice". By means of lantern slides, he illustrated these conditions. His lucid and graphic presentation, both as to diagnosis and treatment, was extremely interesting and informative.

Collation was served after adjournment.

MORRIS COUNTY

M. A. Curry, M.D., Reporter

The Annual Meeting of the Morris County Medical Society was held on the evening of September 29, at the New Jersey State Hospital, Greystone Park. President Krauss presided over about 40 members and guests; including among the latter Dr. J. B. Morrison, Secretary of the State Medical Society.

Routine business transacted included: reading and approval of the minutes of the last quarterly meeting; reading the transactions and deliberations of the Executive Committee, at a meeting held September 28 for consideration of a plan for control of specialism; the use of prescription blanks furnished by druggists; reduction of annual dues to \$15, and the question of continuing the Medical Library at the Morris County Public Library.

Treasurer Young reported a healthy financial condition with a balance of \$1352.44, and his report was duly accepted.

Dr. C. E. F. Laatsch, a Resident Physician at the Greystone Park Hospital, and Dr. Daniel J. Geary, of Morristown, were unanimously elected to membership. The resignation of R. R. Reed was submitted and accepted. There were 3 proposals for membership; Harold Russell Scott, of Morristown; Carmelo A. Musatto, of Boonton; and Walter J. Kossman, of Pompton Plains; all duly referred to the Credentials Committee.

Dr. Young reported on the Medical Library that his investigation revealed that during the year the library had been used 194 times by 15 physicians and 17 other readers, apparently laymen. Dr. Larson entered into the discussion with reference to the advantage of continuing the library, stressing that it consists of bound current journals and that as time goes on their value will increase; citing the difficulties of the individual physician to have facilities in his own office for perpetuating a library of this kind and emphasizing the convenience of having the periodicals in the Morris County Library as against a discontinuance and making it necessary for the physician to go, perhaps, to Newark or New York for library references. The status of the library remained undisturbed.

With the President and Secretary, ex-officio members, the following Committee on Specialists was duly elected: Drs. Lathrope, Hatch and Krauss.

The following officers were unanimously elected for the current year: President, Frank H. Pickney; Vice-President, Inglis F. Frost; Treasurer, George J. Young; Secretary, Albert J. Ward; Reporter, Marcus A. Curry; Historian, H. W. Kice; Executive Committee, McElroy and Larson; Credentials Committee, Ward, Truax and Comeau; Delegates to the State Society, Krauss and McMahon; Alternates, Plume and Thomas.

In view of the reduction of dues to the State Society, it was unanimously voted to reduce the County Society dues from \$20 to \$15.

The question of abandoning the use of prescription blanks as furnished by druggists and substituting blanks of the physicians was discussed but no action taken.

Retiring President Krauss read an impressive paper entitled "Problems for Doctors", covering many angles of ethical, scientific and economic importance to the profession; stating that the cornerstone of the entire medical structure is the family physician; that in this era, when everyone is getting back to reality, the opportunity has come for the general practitioner to re-assert his rightful position; expressing his views on the "closed" hospital and stressing its disadvantages to the young physician of good standing. The retiring President's address was warmly received and has been submitted for publication in the Journal.

Secretary Morrison addressed the meeting on topics of interest and gave a very interesting summary of the creation and operation of a hospital with a full courtesy staff and a part courtesy staff, as contrasted with the "closed" hospital, and of the working of the plan for the control of specialization under which specialists will be recognized by the State Society.

The newly-elected President, Dr. Pinckney, was escorted to the chair and gracefully acknowledged the honor bestowed upon him, paid tribute to the splendid activities of the Society under the presidency of Dr. Krauss, and gave assurances of his efforts to maintain the high standards already set.

After the formal meeting, adjournment was taken to the cafeteria where refreshments were enjoyed by invitation of Superintendent Curry of the State Hospital.

PASSAIC COUNTY

Wayne W. Hall, M.D., Secretary

The Passaic County Medical Society was honored at its Annual Meeting held October 13, by having as its guest speaker, Dr. Joseph Colt Bloodgood, Professor of Clinical Surgery, Johns Hopkins University Medical School.

Dr. Bloodgood, an outstanding authority on Cancer, presented 3 very interesting and instructive lectures.

At 11 a. m. at the Paterson General Hospital he addressed Pathologists and others interested in Surgical Pathology. His talk was accompanied by lantern slides and microscopic studies of the original sections, illustrating numerous border-line tumors, in which there was considerable difference in opinion as to original diagnosis, but subsequent developments proved them to be benign; thereby conserving an extremity, in many cases, or an unnecessarily extensive operation. The speaker particularly stressed the importance of recognizing pathologic conditions that were forerunners of cancer, but equally emphasized the

need for careful study of every case, thereby eliminating needless extensive dissections when lesser surgical procedures would suffice.

At 3:30 p. m. at the Woman's Club, Dr. Bloodgood addressed the Woman's Auxiliary to the Passaic County Medical Society and its guests on "The Protection of Women Against Cancer". This talk was also accompanied by lantern slides, and in it he stressed the importance of a periodic physical examination by a competent physician.

In the evening at 8:30, in the Auditorium of School No. 6, Dr. Bloodgood presented a paper on "How Is Prevention Possible in Cancer". In this he emphasized the need for systematic examination of the cervix after childbirth and the early differential diagnosis of all mouth lesions.

The Nominating Committee, consisting of Drs. Spickers, Chairman, Dwyer, and MacMillan, reported the following names as the choice of the Committee: President, Joseph Bergin; First Vice-President, Harry S. Willard; Second Vice-President, Wright MacMillan; Secretary, Wayne W. Hall; Treasurer, Leslie R. Taber.

Delegates: Drs. W. C. Cantrell; A. J. DeLario; Samuel Ginsburg; Charles W. Harreys; Sandor Levinsohn; William P. Thorne; and John S. Yates.

Alternates: Drs. James R. LoMauro; Allan W. MacGregor; Albert Markel; James E. Phelps; David Polowe.

No other nominations being made from the floor, the above named candidates were unanimously elected.

SALEM COUNTY

William H. James, M.D., Reporter

A meeting of the Salem County Medical Society was held October 12, at the White Palace Restaurant, Salem.

President Hummel introduced the speaker of the evening, Dr. Victor D. Washburn, of Wilmington, Delaware, who chose for his subject, "Tumors of the Bladder", giving a report of cystoscopic examination of nearly 100 cases of employees of the Du Pont Dye Works who use certain dyes that seem to produce tumors of the bladder, some of which are cancerous. Those who work with aniline dyes are most often affected. Irrigation with hot boric acid solution is the best treatment.

Dr. W. T. Hilliard, of Salem, read a very able paper entitled "Eclampsia", detailing symptoms and treatment.

This being the Annual Meeting, the following officers were elected: President, W. T. Hilliard; Vice-President, Halsey S. Bramble; Secretary and Treasurer, David W. Green; Reporter, William H. James; Censors, Summerjill, Perry and James; Member of Nominating Committee, R. M. A. Davis, Alternate, David W. Green.

For the first time, an evening meeting was held, at 9 p. m., as an experiment.

SOMERSET COUNTY

J. L. Young, M.D., Reporter

The Somerset County Medical Society held its Annual Meeting at the Bound Brook Inn, on October 13, under its president, Dr. Josiah Meigh.

Drs. Brittain and Cooper were appointed by the president as an Auditing Committee, and later reported to the society that the treasurer's books were in good condition.

Dr. Aaron Stillwell read the report of the Nominating Committee, naming the following officers for the coming year: Dr. Thomas Flynn, of Somerville, President; Dr. George L. Mack, Bound Brook, Vice-President; Dr. A. F. W. Sferra, Bound Brook, Secretary; Dr. R. F. Hegeman, Somerville, Treasurer; Dr. J. L. Young, Somerville, Reporter. Delegate to state convention, Dr. Aaron Stillwell; Alternate, Dr. A. F. W. Sferra; Custodian, Dr. Lancelot Ely, of Somerville. These being approved by the society, the Secretary was instructed to cast the ballot for their election.

Dr. Renner announced the plans for the Post-Graduate Courses for this year under the auspices of the State Society and Rutgers University.

After adjournment, the members retired to luncheon. The society had as speakers: Congressman Charles A. Eaton, of Watchung; Dr. William R. Davies, Dr. A. Haines Lippincott, of Camden, now President of the Medical Society of New Jersey, and the State Secretary, Dr. J. Bennett Morrison, of Newark.

Other guests were: Dr. Samuel B. English, in charge of the Glen Gardner Sanatorium, and Dr. I. Topkins, of Califon, the Hunterdon County Medical Society's President.

UNION COUNTY

Russell A. Shirrefs, M.D., Reporter

Dr. Emil Stein, of Elizabeth, was chosen President of the Union County Medical Society, at the election of officers and first meeting of the season held by the society October 13, at the General Hospital. Dr. H. V. Hubbard, of Plainfield, retiring President, was in the chair.

Other officers elected are: Vice-President, Dr. Watson B. Morris, of Springfield; Secretary, Dr. G. W. H. Horre; Treasurer, Dr. Alden R. Hoover; Reporter, Dr. Russell A. Shirrefs; and Censor for 5 years, Dr. Milton A. Shangle, all of Elizabeth.

Board of Trustees; elected for a term of 3 years: Dr. James S. Green, Elizabeth.

Dr. Stephen Quinn, Elizabeth, was elected to the State Society's Nominating Committee.

Committee on Public Health and Legislation, 5 years: Dr. George S. Laird, Westfield.

Committee on Scientific and Literary Work: Dr. Harry Bloch, Elizabeth; Dr. C. B. Keeney, Summit; and Dr. Ray T. Munger, Plainfield.

Special Credentials Committee, for 3 years: Dr. H. V. Hubbard, Plainfield; Dr. H. H. Bowles, Summit; Dr. H. R. Livengood, Elizabeth.

In accordance with an established custom of the society the paper at the first meeting was read by the retiring President. Dr. Hubbard's topic was "Vincent's Angina".

Dr. A. Haines Lippincott, President of the State Medical Society, and Dr. J. B. Morrison, Secretary, were visitors at the meeting. Both made brief addresses, outlining the current work of the State Society.

Refreshments were served.

WARREN COUNTY

Charles B. Smith, M.D., Reporter

The Annual Meeting of the Warren County Medical Society was held at Belvidere, on Tuesday, October 18, with less than 50% of members present.

Physicians received into membership were: Drs. William H. Varney, of Washington, transferred

from the Baltimore City Medical Society; Emory Krauss, of Phillipsburg, and William Skinner, of Washington.

The Committee on Post-Graduate Courses was appointed as follows: F. W. Curtiss, of Stewartsville, 1 year; F. P. McKinstry, of Washington, 2 years; and Raymond Wing, of Blairstown, 3 years; and Dr. Wing was appointed as Chairman.

The Committee for Accrediting Specialists consists of Drs. L. H. Bloom, Charles B. Smith and H. B. Bossard.

A letter from the New Jersey State Sanatorium, at Glen Gardner, was read inviting the members to attend a Course of Lectures, at afternoon sessions, to be given on October 18, 21, 25 and 28.

The Treasurer's Report showed a cash balance of \$104.66 in the Treasury.

Several members of the Society made a complaint about not receiving their State Medical Journals during 1932.

The following officers were elected for the ensuing year: President, Raymond Wing; Vice-President, Emory Krausz; Secretary, L. W. Hackett; Treasurer, G. W. Cummins; Reporter, C. B. Smith; Censor for 3 yr., C. H. Lyon; Delegate State Society 3 yr., L. H. Bloom; Member of State Society Nominating Committee, W. H. Varney; Alternate, Herman Baldauf.

Tri-County Medical Association

Charles B. Smith, M.D., Secretary

The Tri-County Medical Association, comprising the Counties of Warren, Sussex and Morris, held its Annual Meeting at the Newton Memorial Hospital, Newton, on Tuesday, October 13, with 45 members present, including the President, Dr. Lipincott, of Camden; the Secretary, Dr. Morrison, and Dr. Beling, Councilor for First District, from the State Medical Society.

Members were invited to inspect the Hospital and were much pleased with this up-to-date institution recently opened for Northern Jersey.

The Treasurer's report showed a balance of \$261.96.

Owing to the depression and the cash balance in the Treasurer's hands, it was unanimously agreed that the dues be reduced from \$2 to \$1 per year.

The State Medical Society Officers gave words of greeting to the Association and congratulated the members from Sussex County on their hospital.

Dr. F. Grendon Reed, of Morristown, read a paper on "Biliary Tract Infection", which was discussed by many members and by Dr. Beling, who gave some of his personal experiences with focal infection as one of the causes which might be overlooked in the etiology of biliary tract infection.

Dr. L. W. Hackett, of Washington, read a short paper on "Causes and Treatment of Sciatica". The high point of treatment to relieve pain in such cases was injection of alcohol in or around the nerve.

The Annual Address was given by Dr. L. W. Ferguson, of Philadelphia, Instructor in Surgery at the University of Pennsylvania, on "Varicose Veins and Ulcers".

This Association is 35 years old and brings the physicians of 3 counties together once a year for the purpose of increasing their knowledge of the Science and Art of Medicine, and of becoming better acquainted with one another; and they have

always had very pleasant times at such meetings.

Next year the meeting will be held in Morris County; the place to be selected by Dr. F. Grendon Reed, of Morristown, who was elected President.

Obituaries

Resolutions Adopted by the Union County Medical Society Upon the Death of Raymond J. Thompson, M.D.

We, the members of the Union County Medical Society, bow to the inevitable in the passing of our friend and co-worker, Raymond J. Thompson, M.D., whose association with us will always be remembered for his genial fellowship, his deep and scientific interest in his profession, and his devotion to his patients.

Therefore, be it resolved, that we record the great loss felt by this Society; and be it further resolved, that we express to his bereaved family, our deepest sympathy; and that these resolutions be spread upon the minutes of the Society, published in The Elizabeth Daily Journal, and a copy thereof sent to the family.

Respectfully submitted,

A. J. Drury, M.D.,
Rowland Blythe, M.D.,
Ferdinand De Cesare, M.D.

Resolutions Upon the Death of Dr. Thompson, Adopted by the Clinical Society of the Elizabeth General Hospital

A Special Meeting of the Clinical Society of the Elizabeth General Hospital was held to take action on the death of one of its members, Dr. R. J. Thompson, Jr., of Roselle Park. Dr. Emil Stein, President, presided.

The following resolution was adopted and a copy sent to the bereaved family, the press and to be spread upon the minutes of the society.

"The inscrutable will of Providence has seen fit to remove from our midst, Dr. Raymond J. Thompson, on October 17, 1932.

Dr. Thompson was only 34 years old, but in the relatively short time that he practiced medicine he made a host of friends. He had the quiet, genial and friendly manners of a gentleman.

Through kindness and sincere interest in his work he soon earned the affection of his patients, the esteem of his neighbors and fellow citizens, and the approval of his colleagues in the profession.

The members of the Clinical Society of the Elizabeth General Hospital, assembled in special meeting to express their sentiments on his untimely death, extend to his widow and children their heartfelt sympathy and sincere condolences on their irreparable loss.

It is further resolved that this resolution be spread upon the minutes of the society, and that copies be sent to the local press and the bereaved family.

Irving Lerman,
Morton Gittelman,
William Yuckman,
Committee."

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MEDICAL AND SURGICAL PROBLEMS OF THE LARYNX AND HYPOPHARYNX

HENRY BOYLAN ORTON, M.D.,
Newark, N. J.

There are only 2 major subjects in this region to be specially considered: (1) The pharyngeal pouch, which is being taken care of by the Jackson-Shallow operation or the Lahey 2-stage procedure; and, (2) malignancy.

Pulsion diverticulum is located usually on the postero-lateral wall of the pharynx, at about its junction with the esophagus; in other words, it is a hernia of the esophagus between the fibers of the inferior constrictor and between the transverse and oblique bundles of the cricopharyngeal division of that muscle, being located, therefore, in the pre-vertebral space.

The symptoms are salivation, choking sensation, as if due to a foreign body in the throat, and, as the pouch becomes larger, inability to swallow a large bolus of food. Those who are particularly interested in this subject are referred to the publication entitled "Surgical Management of Pharyngo-Esophageal Diverticulum", by Dr. Frank H. Lahey, of Boston.

Cancer of the larynx is relatively rare, according to St. Clair Thomson. In every 100 deaths caused by cancer, 1.8% are attributed to cancer of the larynx, and 21% to cancer of the stomach. It is apparent that cancer of

the larynx is more prevalent in England than in America.

Intrinsic cancer of the larynx is 10 times more frequent in men, but it must be remembered that women do have it, and most commonly between 50 and 60 years of age.

Extrinsic cancer of the larynx occurs only occasionally in women but post-cricoid cancer is more common in women than in men. Predisposing causes are said to include bad teeth, tobacco and syphilis. Jackson believes that 64% of patients suffering with laryngeal cancer give a history of vocal abuse, and he believes in pre-cancerous lesions, and that laryngeal cancer rarely appears in a normal larynx. Chronic laryngitis, keratoses, papillomas and granulomas, all form favorable soil for development of cancer. Cigarette smoking seems to be less dangerous than pipe and cigar in the production of cancer of the buccal cavity or larynx. Hot drinks, it is said, may be a predisposing factor in some post-cricoid cancers seen in women.

As to diagnosis, hoarseness is the one and constant symptom of laryngeal cancer, and it is both persistent and progressive. The voice may be weak, or loud and strong, but is always rough and toneless. At first there is no pain, cough nor dysphagia; but later, pain, cough, stenosis and ulceration develop.

Treatment consists of laryngo-fissure or laryngectomy. In early cases, with growth limited to the anterior-third of the cord, a laryngo-fissure, or thyrotomy with extirpation of a wide area, will, according to the statistics of St. Clair Thomson, Jackson and others, produce cure in 85% of cases. The

following brief case history may be of interest:

E. Z., a white woman, aged 48, was referred to me October 20, 1919, complaining of a dryness of throat accompanied by hoarseness. When talking for any length of time her voice tired. She seldom coughed and had very little pain but, when felt, the pain radiated from neck to left ear. Headache occasionally; appetite good; slept well; no pain on swallowing; no shortness of breath; gaining weight; and had been treated for a chronic laryngitis for more than a year. Direct laryngeal examination showed a warty, grayish-white growth on the anterior part of the left cord, with a sluggish movement, and microscopic examination of a specimen, by Dr. John W. Gray, revealed an epithelioma of the left cord. A thyrotomy, or laryngo-fissure, was performed on November 8, 1919, and the patient has remained entirely well, with a good voice, up to the present time, a period of 12 years without recurrence.

When the growth appears to be larger, and to be involving the posterior part of the cords, the outcome with laryngo-fissure is not so successful, and a complete laryngectomy should be done, provided the growth has not already "jumped the fence". To illustrate: G. S. O., a white man, aged 72, was referred to me by Dr. Fisher, of Asbury Park, because of intrinsic carcinoma of the larynx. Laryngectomy was performed on June 23, 1924, and that man is alive and well 8 years following his operation.

Drawbacks to operations in the laryngo-pharynx may be classified, according to Trotter, in 3 ways: (1) On the uncertainty of cure, which is most important; (2) on the danger of operation and the distress of convalescence; and, (3) concerning the mutilation and disability that may be left by an operation otherwise perfectly successful. I believe that something can be done for patients who are suffering from so-called extrinsic cancer of the larynx. Better terms are, however, epilaryngeal cancer, a growth originating on the epiglottis, aryepiglottic folds, pyriform sinus or lateral wall of the pharynx; and, hypopharyngeal cancer, occurring in the

lower portion of the pharynx. If the growth had its origin from the lateral wall of the larynx, it soon involves the pyriform sinus and thyroid cartilage, and nothing short of complete laryngectomy, with a partial or entire removal of the cervical esophagus, will be of any use. This group contains the cases most discouraging for any operative procedure, yet, if the condition is seen early enough, a few additional years of life may result from the operation.

When is a malignant condition of the laryngo-pharynx suspected? In middle-aged and elderly people, any kind of abnormal sensation persistently felt in the same part of the throat, should be regarded seriously. For a long time such a condition does not give rise to any marked symptoms. It is not uncommon for patients to consult physicians for enlarged glands in the neck along the sternocleidomastoid muscle, and, too often, these glands are removed before thorough examination has been made. Subjectively, the patients may complain of a tickling sensation in the throat, like that caused by a crumb of bread. Discomfort in swallowing, alone, but not with meals, may or may not be accompanied with pain. In very early stages there is no pain, no trouble in swallowing, no alteration in voice and no loss of weight. Occasionally, patients may have some pain or vocal fatigue after speaking.

If the deep portion of the pyriform sinus is diseased, the posterior branch of the inferior, or recurrent laryngeal, nerve may be involved; which causes anesthesia or analgesia of the upper portion of the larynx, or a paralysis of some of the intrinsic muscles, and will result in slight attacks of choking between or during meals, huskiness of voice, and fixation of the arytenoids (not subjective). Such patients may complain of a large amount of mucus in the throat, or, again, the first sign to cause them to seek medical advice may be an enlarged gland in the neck; and this may not be carcinomatous.

How may a probable diagnosis be made? When a patient of 40 years or over complains of pain in the retrohyoid region, with huskiness of voice, pain and difficulty in degluti-

tion, and swelling in the median or lateral portion of the neck along the border of the sternocleidomastoid muscle, a malignant condition must be thought of, and a very careful examination should be made. The most important part of the examination is often overlooked, not because it is difficult but because of not getting a clear view. In the laryngologic examination the physician must obtain a good view of the hypopharynx—must see the movements of the arytenoids on phonation and inspiration—and must ascertain whether the patient has mucus in the pyriform sinus which cannot be removed by swallowing. The laryngeal picture may give the appearance of a chronic ulcer with raised margins and depressed ulcerating center, or, of a sessile growth projecting into the lumen. Fixation of the arytenoids may be noted, or the cavity may be filled with a large mass the surface of which is either ulcerating or sloughing. If the arytenoids are fixed and no growth is seen, then the pyriform sinus may be the site of growth. The patient is instructed to say—E—thereby elevating the larynx and bringing into view a slight edema below the arytenoids and, if the upper edge of an ulcer is seen, it is diagnostic of a malignant process. Further study with Roentgen rays, followed by direct laryngoscopy or esophagoscopy, with removal of a specimen for biopsy, will complete the examination. Forward displacement of the larynx, and palpation of the growth with enlarged, fixed glands, are all late signs.

How may the gravity of the case be estimated? If, on examination, fixed arytenoids with large ulcerations, be found, it is clear that the pyriform sinus is involved; which usually signifies a very late stage. A movable arytenoid with a large growth is more favorable. Then again, the operability of the growth may be determined only by actual exploration, with or without the pharynx being opened. In a recent article, Lewis states: "At present we must rely upon methods which have been employed for sometime; chief among these are surgery and radium. If surgery is to secure the best results, the diagnosis must be made early."

The best method of approach to cancer in the region of the pharynx is either by the

lateral transthyroid pharyngotomy of Trotter, or by anterior translingual pharyngotomy. After a preliminary tracheotomy, the incision for ordinary transthyroid pharyngotomy would be along the anterior border of the sternocleidomastoid muscle, reflecting anteriorly and posteriorly the muscles of the larynx. But, as most of these patients, by the time they are examined, have enlarged glands of the neck, from infection or from lymphatic extension, and it becomes necessary to perform a resection, such an incision is inadequate, and an additional incision has to be made, more or less at right angles to the original, and running from the angle of the lower jaw downward, forward and upward to the symphysis. These flaps, and the platysma, are turned back and the superficial fascia, the submaxillary gland and the deep fascia are, likewise, removed upward and backward as far as the spinal accessory nerve and the posterior triangle. This step exposes the deep vessels of the neck and the muscles surrounding the larynx. All the vessels that come off anteriorly from the great vessels are to be ligated and cut, and the internal jugular ligated and resected. Whether the external carotid shall be ligated and the sternocleidomastoid muscle shall be removed, depends on the glandular involvement.

The next step is to suture the sternocleidomastoid to the prevertebral fascia so as to cover the great vessels and protect them from infection when the pharynx is opened. The area can be drained by a counter-opening posteriorly. The following muscles are then reflected from the hyoid bone and thyroid cartilage: the hypoglossal, thyrohyoid, sternohyoid, sternothyroid, stylopharyngeus, and the inferior and middle constrictors of the pharynx. One is then ready to remove, by means of heavy scissors, the exposed portions of the hyoid bone and the greater portion of the thyroid cartilage; which permits one to palpate the growth through the pharyngeal aponeurosis and mucous membrane, and to decide where to open into the pharynx so as to be far away from the malignant area. If the growth is too large to remove, one may back out, so to speak, and not proceed any further.

Next, to open the pharynx, an incision is made which will give an approach to either

a hypopharyngeal or an epilaryngeal growth, and which may be continued upward through the mandible, as in one of my cases, to remove a growth higher up, or downward to the clavicle. Before the operation, one has a fair idea of how much tissue it will be necessary to remove, and the flap is made sufficiently large to fill up the defect. A feeding tube is inserted into the esophagus. Later, a plastic operation is performed to close the

line corresponding to the lip incision. With the mandible separated, the tongue is divided back to the epiglottis; the growth is removed with as much healthy tissue as necessary; the body of the hyoid bone may be removed; the soft parts are sutured together; and a drain is inserted in the lower portion of the wound. C. A., aged 58, male, white, had such an operation performed, September 1, 1930, and is alive and well at the present time.

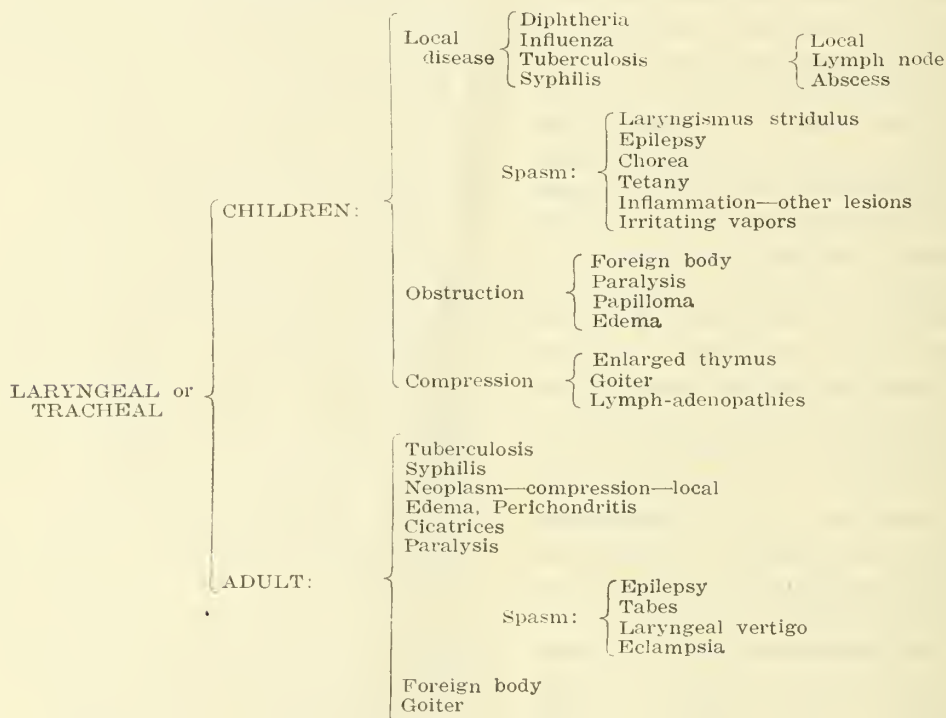
DYSPNEA

Dyspnea—Exclusive of pneumonia, capillary bronchitis, emphysema, pneumothorax, asthma.

Retropharyngeal abscess—children

Treatment: Evacuation

Radiograph spine



neck. G. W., aged 51, female, white, had such an operation performed, March 19, 1931, and is still living.

Operation of anterior translingual pharyngotomy. A preliminary tracheotomy is done, through which the anesthetic can be given. Then, an incision is made in the median line over the lower lip, extending downward to the top of the thyroid cartilage. The mylohyoid is divided and the interval between the geniohyoid opened. Then, by means of a Gigli saw, the mandible is divided in the median

Indications for tracheotomy would be: (1) as a therapeutic measure, to put the larynx at rest, as in treating syphilis or tuberculosis; (2) for foreign bodies, but only for the dyspnea, not for removal; and (3) for respiratory arrest. Immediate indications are—dyspnea or drowning in one's own secretion. Do it early; don't wait for cyanosis. Never use a general anesthetic. Forget about the classic *high* and *low* tracheotomies; do only a *low* tracheotomy. Do not give any morphine. There are no contraindications.

Chronic stenosis of the larynx. Usually seen by the surgeon in a tracheotomized or intubated patient. May be classified as, neoplastic, hyperplastic, cicatricial, with loss of cartilage, loss of muscular tissue or fibrous. May be traumatic, and tracheotomic, intubational or operative. Treatment of these conditions is either by laryngostomy, laryngeal bougienage after tracheotomy, tracheal bougienage, or cutting fibrous bands.

Paths of infection for abscesses in the neck. Abscesses in the neck arise chiefly from cervical lymph glands in which are retained infective agents from a regional inflammatory process, and extension of the pus follows along certain definite channels, i.e., the connective tissue planes of the cervical fascia. There are 4 usual fibrous tissue paths along which an inflammatory process may extend: (1) superficial; (2) pretracheal; (3) buccopharyngeal; (4) prevertebral. These paths are opened during certain operations, either on the trachea or larynx for removal of a foreign body, or, on the esophagus.

Treatment would be, to drain through the area infected, or a cervical mediastinotomy; and in doing the latter, the right side affords the better approach as the pleura on that side is further away from the esophagus. We use a local anesthetic along the border of the sternocleidomastoid muscle; the trachea is exposed and then the esophagus; then, by means of blunt dissection, the mediastinum is opened; a drainage tube is inserted; the patient is put to bed in a Trendelenburg position and suction used constantly.

Cut throat, whether it be homicidal, suicidal or accidental, is usually in one of the 6 places: (1) Above the hyoid bone, which usually does not enter the pharynx. (2) Through the thyrohyoid membrane, which may amputate the epiglottis and permit it to fall into the larynx. (3) Through the thyroid cartilage. (4) Through the cricothyroid membrane. (5) Through the trachea. (6) Through the trachea and esophagus. In all

cases you have hemorrhage, shock, anesthesia and suffocation.

Treatment: Stop hemorrhage; tracheotomy; parts to be approximated; wound left open; feeding tube; and the after-treatment is that of a tracheotomized patient.

DISCUSSION

Dr. Louis H. Clerf (Philadelphia): First of all, I wish to state that Dr. Orton is doing pioneer work in this country in the treatment of carcinoma of the pharynx, a group of conditions that necessitates formidable surgery and an enormous amount of after-care. Heretofore, we had always believed that they were hopeless cases.

With regard to diverticulum, or pouch, of the pharynx, the first important step is *diagnosis*. The making of a diagnosis lies in the hands of the majority of us; the treatment has to be carried out by a relatively few. Any roentgenologist, any general practitioner, can suspect, and probably, positively diagnose a case of pharyngeal diverticulum, but it requires a highly specialized operation to effect a cure. When any patient comes to you with difficulty in swallowing, be it ever so slight, do not make a tentative diagnosis of hysteria and let it go at that. That is the way that diverticula, that is the way that cancer, and a lot of other esophageal diseases start; just a suggestion of some slight indescribable sensation localized somewhere along the course of the esophagus. Years ago there were many cases of hysterical dysphagia. Since our methods of diagnosis have been improved the number of cases has decreased. Instead of using a bougie in diagnosis, we send patients to the roentgenologist, the only diagnostician I know of who can tell us anything about the function of the esophagus. That is very important and represents one of the real contributions in recent years to diagnosis—the functional study of the esophagus.

As to the question of hoarseness; there again, it is so important to make a diagnosis. There is no need of Dr. Orton's telling us about the excellent results we get from operation if we do not recognize the cancer until it is inoperable. Early cancer of the larynx gives the best results, I do believe, of cancer in any location in the body. I am quite certain his statistics in early cancer of the larynx give a cure rate above 80% and that is mighty good, but it means *early* cancer. When a patient comes to you complaining of some slight vocal disturbance, there is only one thing to do and that is to find out what is wrong. There is only one way you can find out, and that is to look into the larynx.

Chronic laryngitis means nothing unless you establish the diagnosis by ruling out all the other causes of hoarseness. If you make a diagnosis of chronic laryngitis on the history you have not completed your case. That is the one thing I want to emphasize, diagnosis, early recognition of symptoms, and the carrying out of the proper procedures to determine what is wrong with the patient. One cannot intelligently discuss treatment of a condition until after a diagnosis has been made.

LUNG COMPLICATIONS FOLLOWING MEDICAL OR SURGICAL PROCE- DURES ON THE UPPER RES- PIRATORY TRACT

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Lung complications following strictly medical procedures of the upper respiratory tract are very rare. The literature is silent on this subject. We recite the following case history to show that, occasionally, they do occur.

An infant, several months old, was admitted to the Pediatric Ward with a history of cough and having had contact with a tuberculous parent. It was mentioned, but not stressed, that the infant had been given nasal instillations of white oil for some time before. Examination revealed indefinite signs of pulmonary disease; tuberculin test was negative; and the roentgenogram showed a definite bilateral pulmonary infiltration, as can be seen in the accompanying photograph. A tentative, but doubtful, diagnosis of tuberculosis was made, and the infant was transferred to the sanatorium for further observation. While there, it developed a mastoid infection and died, and autopsy revealed a lipoid pneumonia. William Boyd mentions a case of lipoid pneumonia in an adult due to repeated spraying of the throat with liquid petrolatum for severe burns from chloride of lime.

The frequent use of lipiodol for visualizing the bronchial tree leads to thoughts on the effect of the oil on pulmonary tissue. Experimentally, it has been shown that in animals no reaction is produced by the simple, neutral, vegetable oils, of which the iodized poppy-seed oil is an example. Wyman

Whittemore, however, raises the question of the possibility of infection being carried by the oil to a sound healthy lung. As yet, we have no evidence which requires us seriously to consider this possibility.

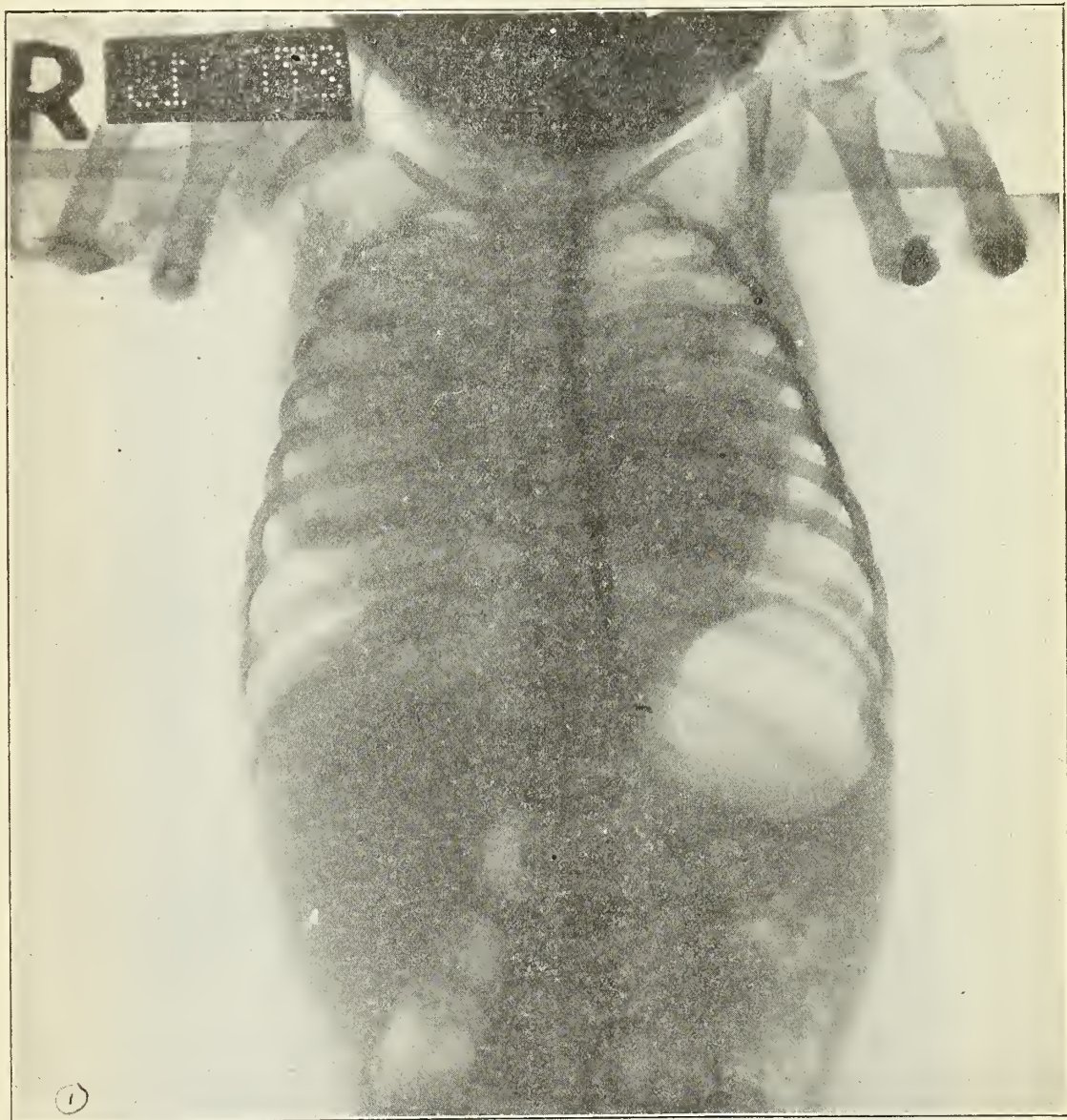
Lung complications following surgical procedures on the upper respiratory tract divide themselves into 2 groups—*apparent* and *actual* complications. In the first group we place individuals who have "lung pathology" present before operation, but in whom that pathology is not recognized because of an incomplete investigation; while for the second grouping we consider such diseases as lung abscess, atelectasis, bronchiectasis, acute bronchitis and pneumonia.

In presenting the following case histories, we hope to impress you with the importance of a critical study of every seemingly operative case, and to stress the fact that every patient for whom an operative procedure is considered, should, if at all possible, have the benefit of an x-ray picture of the chest.

The first case is that of a school teacher, 26 years of age, who consulted her physician 3 years ago because of slight loss of weight and fatigue. After examination, that family physician referred her to a nose and throat specialist who advised a submucous resection. This was done, and, except for slow healing of the wound, the patient had an uneventful convalescence and returned home 10 days thereafter. Several weeks later she returned to the specialist stating that she had noted no improvement and, on one occasion, she had noticed some blood-streaked sputum. Another examination was made and a tonsillectomy advised, and that operation, too, was done. Following the tonsillectomy, she began running a febrile course, remained in the hospital for about a week, and then returned home where she stayed in bed because of fever and marked fatigue. On bed-rest the fever subsided except for a slight rise in the late afternoon. Several weeks later she began to have intermittent attacks of abdominal cramps and diarrhea, for which she again consulted her family physician who gave her electric treatments to the abdomen; a treatment which was continued for some time but without improvement.

She then consulted one of us, and an examination revealed a malnourished individual with physical signs pointing to definite pathology in the upper lobes of both lungs; the sputum was positive and the radiograph of the chest, and fluoroscopy, and an x-ray ser-

sician because of a slight productive cough in the early morning. He suggested a tonsillectomy, which was promptly performed. Following the operation she began to run a mild fever, which persisted, and her cough and expectoration became more pronounced. She



No. 1. Lipoid pneumonia in a child, following frequent nasal instillations of white oil.

ies of the gastro-intestinal tract, revealed tuberculous disease of both sides (see photographs).

The second case is that of a young girl at present a patient in our institution. Several months ago she consulted her family phy-

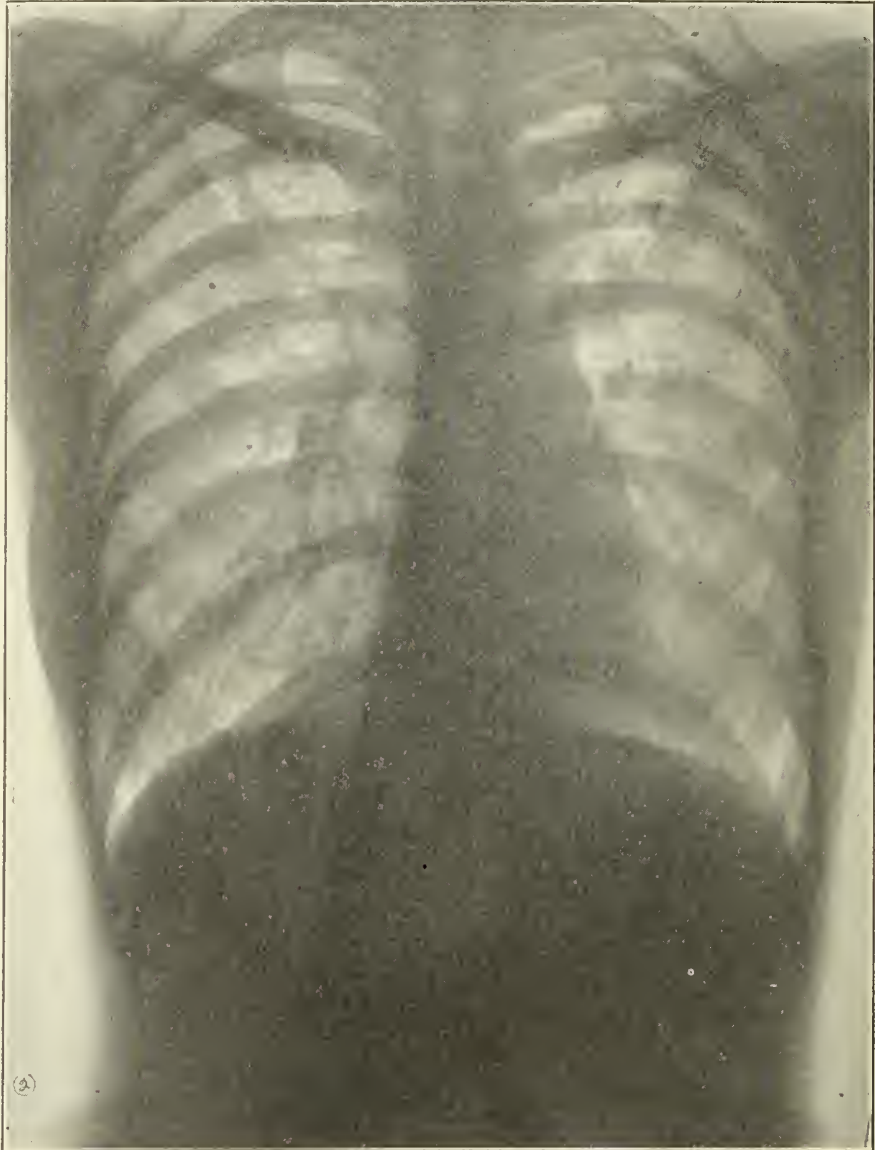
was then advised to seek aid from one of our clinics, and there a roentgenogram and sputum analysis revealed pulmonary tuberculosis.

A third case is that of a middle aged man who was seen by one of us at the medical clinic, where he came because of an unpro-

ductive cough. He stated that his family physician felt that his tonsils were the basis of the cough. At the nose and throat clinic they could not find evidence of disease in the tonsils and referred the patient to the medical clinic. Examination of his chest was nega-

performed, might have developed complications the potentialities for which were already present (see photograph).

These are only examples from many patients who are operated upon without having had made a chest roentgenogram. After



No. 2. Bilateral miliary tuberculosis with cavitation of both apices.

tive until a roentgenogram revealed large tracheobronchial glands causing pressure on the trachea. The large glands, with presence of a Ghon tubercle, pointed to a childhood type of tuberculosis of recent origin. This patient, on whom a tonsillectomy had been

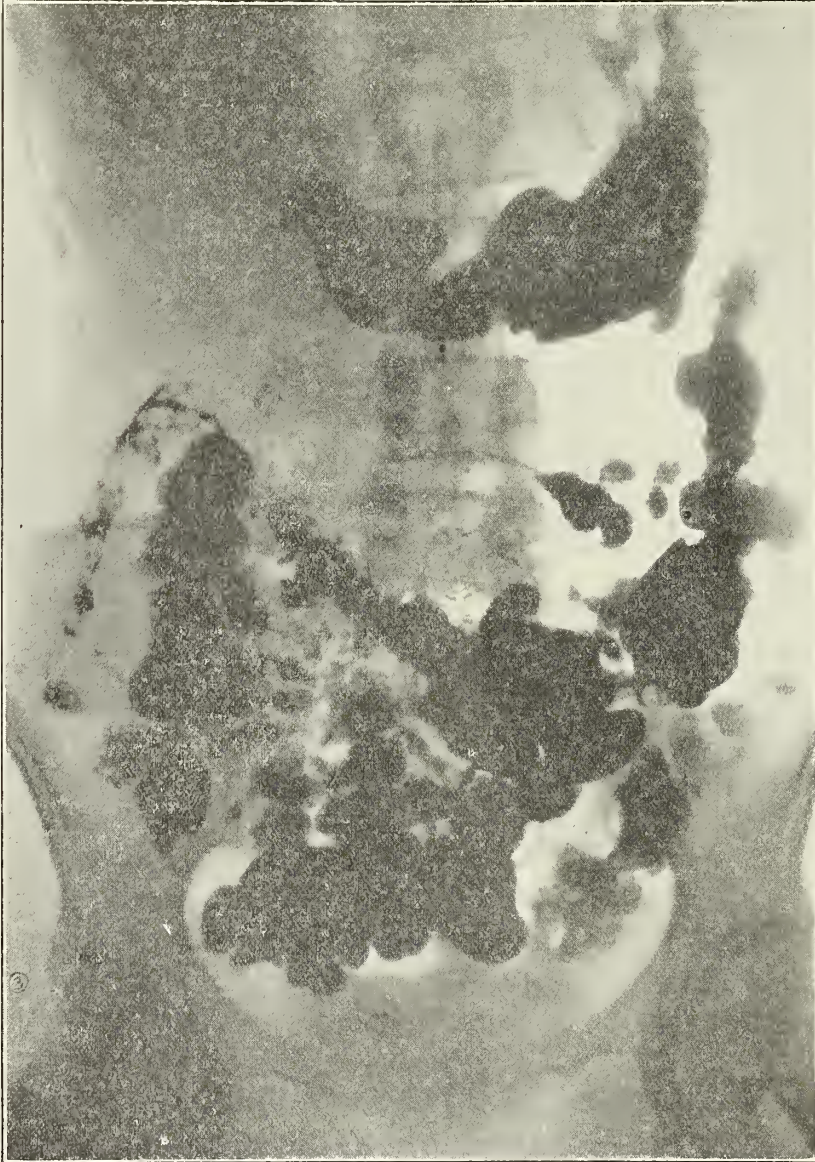
operation latent lesions often become awakened, and slight or indefinite symptoms become prominent for the first time. The disease in the chest is only then detected but it cannot justly be classed as a complication. These apparent complications are and should

be avoided by a thorough study of each patient.

Instructive as these cases belonging to the apparent complications are, they are overshadowed by the complexity of the problems which the actual complications we are about

cases is still obscure. One need only refer to the mass of literature on this subject to be convinced of the confusion that exists.

Lung abscess is worthy of special consideration. In Lord's series of 227 cases, 1 out of every 3 was due to some operation in the



No. 3. Same patient showing tuberculous ileocolitis.

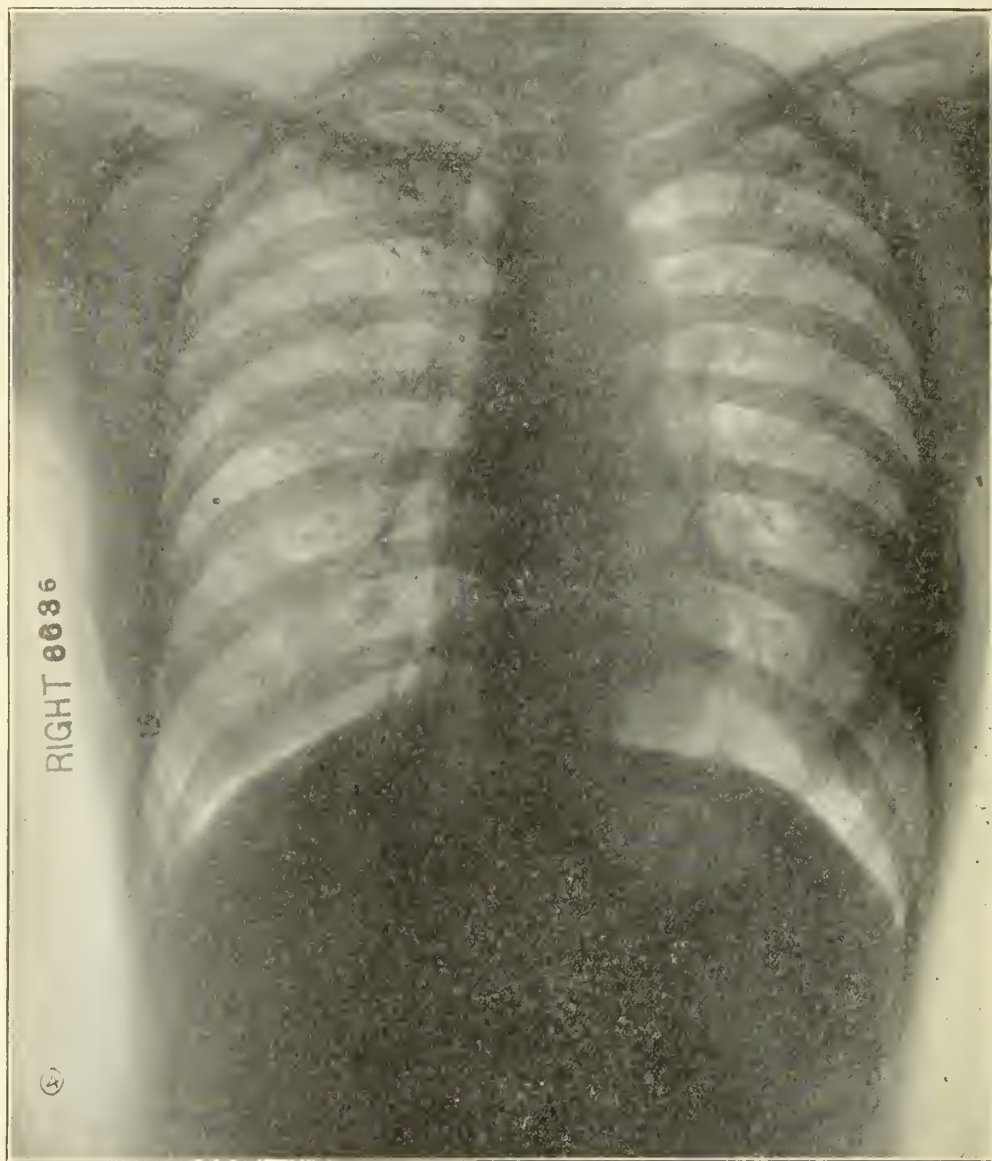
to discuss present. Prevention of the former depends wholly upon the thoroughness of the surgeon and internist; but not so with the latter group. Here, we are concerned with such diseases as lung abscess, bronchiectasis and atelectasis, the etiology of which in most

upper respiratory tract. In another series of 218 cases, more than 80% followed some operative procedure in that area. In still another series of 333 cases, 65% followed operations about the mouth and nose, including tonsillectomies. There is no doubt that these

figures would be increased if a more thorough follow-up of postoperative results were possible.

What is the route of infection? Is it aspiration or embolism? We need not go into details except to state that evidence has been

aspiration, and that convincing experiments have been recorded proving the embolic origin of some infections. But, be that as it may, we should consider another etiologic factor which is now being stressed, namely, aspiration of infectious material from around the



No. 4. Bilateral miliary tuberculosis with cavitation in right apex detected after tonsillectomy.

brought forth showing that *aspiration* is probably the most common method of infection. In accepting this supposition, however, we should not forget that experimentally it is difficult to produce suppurative disease by

teeth. The work of Crowe and David Smith is, to say the least, good suggestive evidence.

Another factor is the aspiration of a foreign body. In the series of 333 cases of lung abscess mentioned above, 17.3% followed

such an accident. The foreign body may be a tooth, a piece of tubing, a spicule of an instrument broken off during manipulation, and so on. This is a very important etiologic factor and should always be eliminated first in

where fluoroscopy and a roentgenogram revealed a foreign body lodged at the bifurcation of the bronchus, and upon bronchoscopic manipulation a piece of rubber tubing was withdrawn, with immediate relief of the



No. 5. Childhood type of tuberculosis in an adult. Note calcified Ghon focus above outer leaf of left hemidiaphragm; protruding nodes over left border of heart and upper pole of right mediastinum; and fuzzy right lower mediastinum.

studying the patient. The following case, although not one of lung abscess, will serve as an example.

A child developed asthma following a tonsillectomy and was admitted on our service,

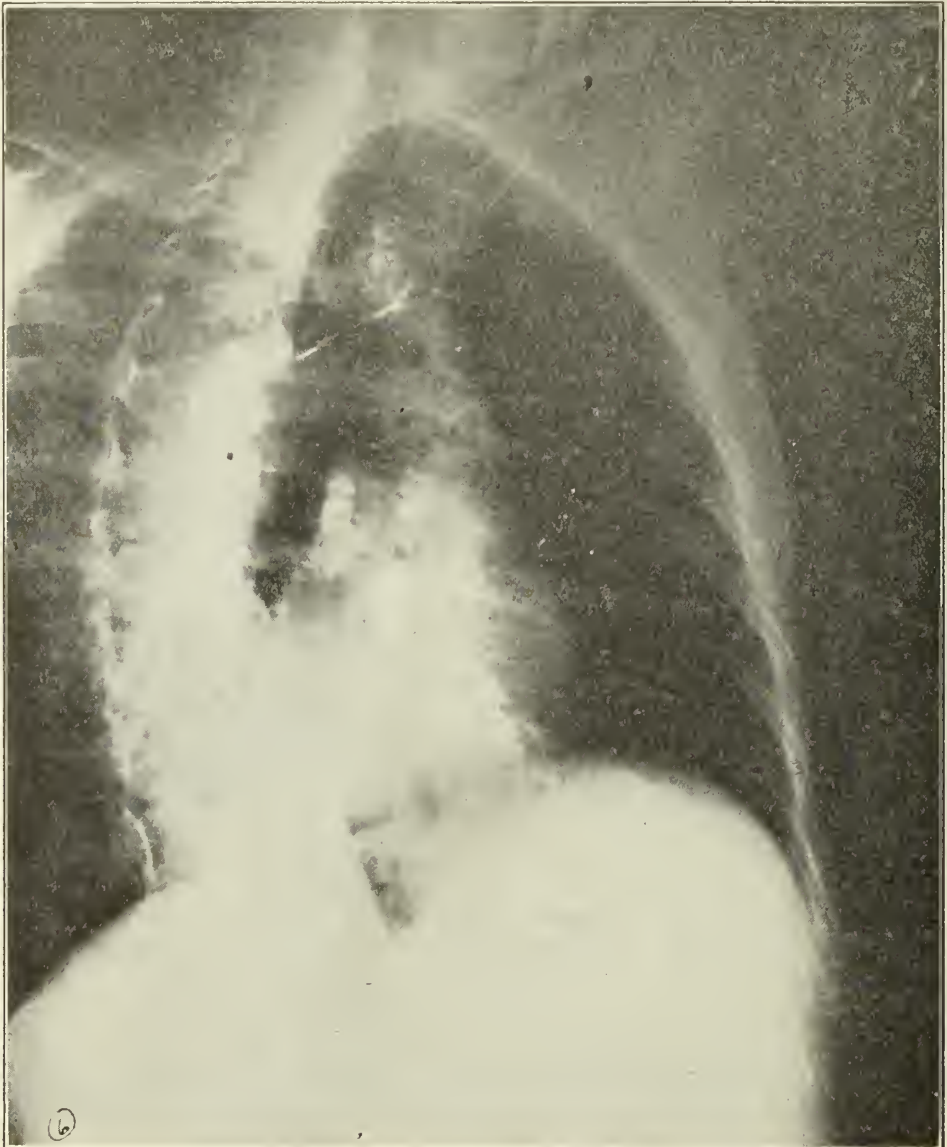
child's symptoms. In reviewing the history it was found that the surgeon who performed the tonsillectomy was in the habit of using a nasal catheter, which he passed into the nasopharynx for aspiration of blood and

mucus during the operation. In snaring the pedicle of the tonsil a part of the catheter was snipped off.

If aspiration is the most probable mode of entrance of infectious material into the lung, what factors favor aspiration? Is it the type

prefer to leave the answers to Dr. Dieffenbach, who is better prepared for such discussion.

It has been said that the frequency of lung abscess might be reduced if each patient upon whom operation is advised, could be more



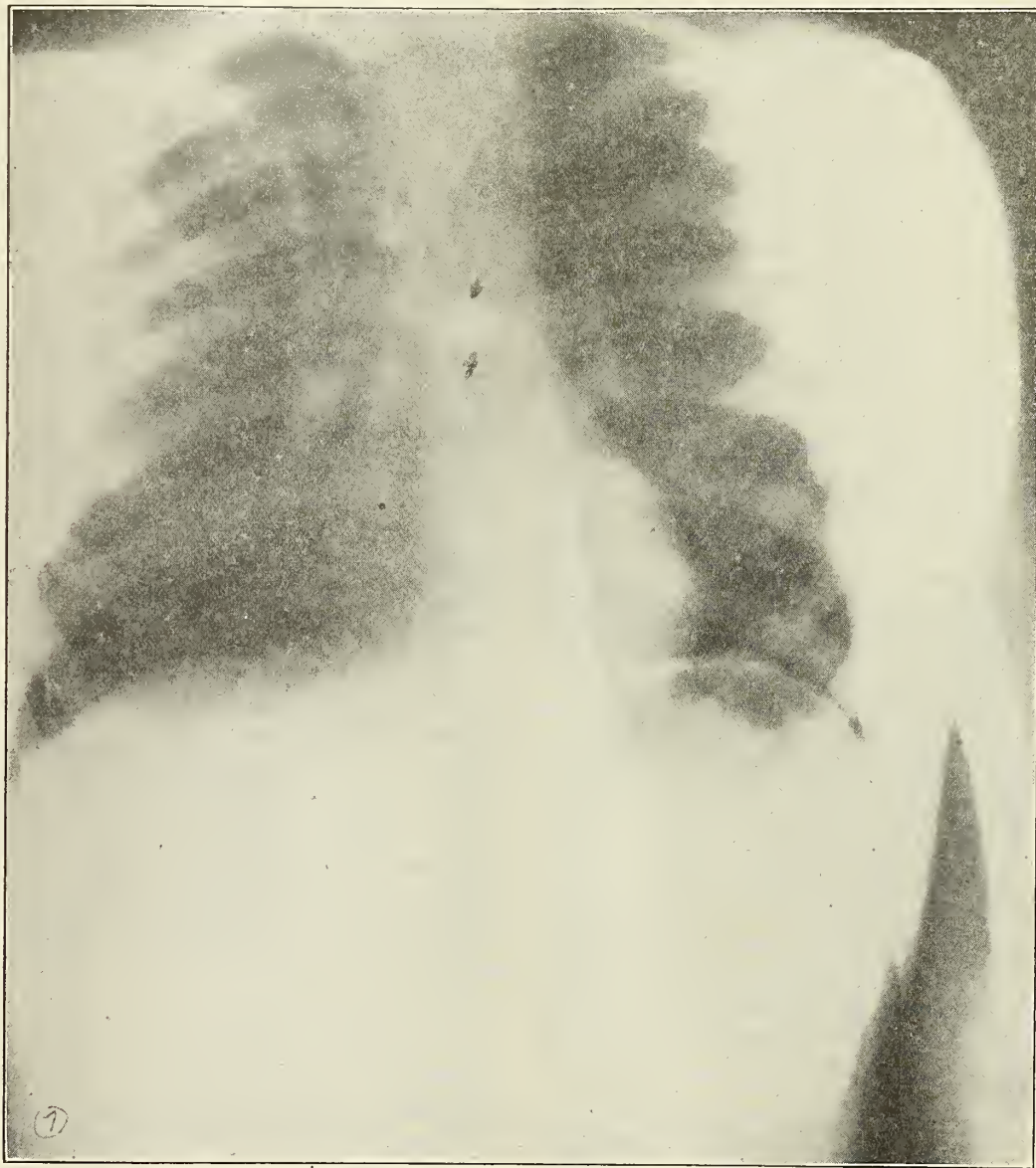
No. 6. Same patient, but showing in lateral view a partly calcified node in upper pole of the mediastinum pressing on the trachea; and, a calcified node at the main bronchial bifurcation

or the depth of anesthesia produced, the type of anesthesia apparatus employed, the patient's position during operation, or a combination of these factors? All these questions have been raised and debated many times. We

carefully studied with regard to oral infection, and if operative technic and administration of the anesthetic were directed toward the prevention of aspiration. Until such time, however, as the etiologic factors are more

thoroughly understood, and better preventive measures can be initiated, we will be confronted with these patients on whom an early diagnosis and proper surgical intervention at the opportune time, are greatly desired. For the sake of convenience, we shall defer con-

the operation. Early bronchiectasis is not easily recognized unless the physician thinks of bronchiectasis and employs such measures as lipiodol injection followed by fluoroscopy and a roentgenogram. It may be assumed, therefore, that in the general work-up of a



No. 7. Note foreign body at bifurcation of the bronchus.

sideration of this until we have discussed bronchiectasis and atelectasis.

Bronchiectasis following operative procedures about the upper respiratory tract may be an exacerbation of an unrecognized previously existing process or a direct result of

history, some cases will be missed in patients whose disease will be detected only after operation has caused the symptoms to become aggravated. Consequently, those cases of bronchiectasis that show a direct relation to operation do not come to the attention of the

patient or physician early. More often than not, there is an interval of some length between the operation and the real initial symptoms. This is not surprising when one remembers the pathogenesis of the disease. The etiology here, as in lung abscess, rests on uncertain grounds except in that small number of patients in whom obstruction by a foreign body is a direct factor. Clinical observation, as well as experimental work, leads one to believe that in every case of bronchiectasis we should look for infection in the oral and nasal cavities and the sinuses.

Atelectasis, whether massive or confined to one lobe, is not a frequent complication. It has been estimated that anywhere from less than 1% to between 1% and 2% is an average number. The consensus of opinion is that plugging of a bronchus or one of its subdivisions brings about this accident. Bronchoscopy has aided much to confirm that opinion. The clinical observation of significance in this regard, is the observation made by Bray and his associates at the Raybrook Sanatorium in connection with pulmonary hemorrhage. They had several such cases complicated by massive collapse. Some of those patients were relieved of symptoms after a bronchial cast had been coughed up. Roentgenograms taken before and after passing of the cast proved the diagnosis beyond any doubt. It must not be lost sight of, however, that in spite of these clinical observations and the finding of mucus and bloody plugs by bronchoscopy, there are cases where bronchoscopy with negative findings disposes of the symptoms of atelectasis. It is believed by some that a reflex phenomenon is responsible for many cases of postoperative atelectasis.

In passing, it is of interest to note that Coryllos and his followers believe that the postoperative lung complications have their origin in small patchy areas of atelectasis in which changes result often in pneumonia, lung abscess, bronchiectasis or even gangrene of the lung. If this is true, we might think of all complications as a certain stage in a series of changes. What determines the particular stage to be reached by such a series

of changes in any individual is not at all clear.

Diagnosis and treatment of any of these complications should be shared by the surgeon and internist. As soon as an operative case begins to deviate from a normal postoperative course a competent internist should be consulted, for it is only in this way that we can hope to decrease the mortality, and especially the morbidity, from lung complications.

In any postoperative complication pertaining to the lungs, the history, plus the course since operation, is the most important data as an aid to diagnosis. What is next of importance is a matter of opinion. We believe, however, that a very careful examination of the chest, correlating the physical findings with the findings of a good roentgenogram, should follow. The physical signs are frequently indefinite and confusing. Cavities, especially those deep-seated, are missed, according to some reports, in more than 50% of cases. It is apparent, therefore, that a roentgenogram is very essential and that without such a picture no positive diagnosis should be made.

Such a study coupled with information obtained from necessary laboratory procedures is usually found sufficient for a differential diagnosis of the lung process. Where, however, bronchiectasis is suspected lipiodol studies become essential for an unquestionable diagnosis; and, for reasons obvious from our discussion of the etiology of lung abscess, atelectasis and bronchiectasis, bronchoscopy should be employed where these conditions are suspected or diagnosed.

The diagnosis having been made, the next question is that of therapy. We may dismiss uncomplicated pneumonia and bronchitis by saying that these are clearly medical problems. Not so, however, with lung abscess, bronchiectasis and atelectasis. In those diseases the importance of medical treatment is directly proportionate to one's awareness of its limitations. This is especially true of lung abscess and bronchiectasis. In the former, because of the more or less stormy onset, the patient should be treated as in any acute respiratory infection by complete bed-rest, sufficient fluids

and good nursing. During the first few days the patient takes little food because of the marked anorexia. As the toxemia abates, and the appetite returns, a high caloric diet should be resorted to. The value of expectorants is questioned by some and thought by others to be very helpful. Sedative cough mixtures should be avoided during the day because they interfere with free expectoration. At night, to insure rest, one should not hesitate to use them to allay a troublesome cough.

Much has been said regarding position of the patient best suited for adequate drainage. In the acute stage of the disease the patient is, as a rule, too sick to stand much disturbance. In the subacute phase it has been found that whatever position the patient takes, to favor expectoration most easily, is the posture to be adopted. Having done this the physician has carried out only a minor part of his responsibility to the patient. From this point on, a period of "watchful waiting" begins, during which the patient must be carefully observed with regard to symptoms and what anatomic changes are revealed by roentgenogram. It has been estimated that as high as 50% of lung abscesses heal spontaneously. It is evident, therefore, that in this particular group medical treatment alone will suffice. What about the remainder of the patients? They will require surgical intervention, and with them, it is the duty of the medical man to insist on early surgical intervention provided the condition of the patient allows; in short, this period of watchful waiting should serve, first, to pick out those patients in whom healing is not spontaneous, but who are in condition for early surgical intervention; and, secondly, to prepare for surgery those patients who are not in condition for early operation.

In bronchiectasis, medical treatment plays a very meager rôle. In saying this, we are aware of the fact that encouraging reports have been recorded regarding the use of neo-arsphenamine in cases of bronchiectasis where spirochetes were found in the sputum. The best one can say for this form of treatment is that it is palliative. Often one has to weigh the doubtfully beneficial results with

arsenic against its damaging effect on the kidney.

Postural drainage is very helpful in these cases but results in no cure. It should be used, however, in all cases as a pre-operative measure.

In a recent article by Homer Cherry, the advantages of rest treatment of pulmonary abscess patients are convincingly put. This is merely restatement of a fact previously brought out on many occasions by other observers. In lung abscess and bronchiectasis prolonged rest should be given to those who recover spontaneously as well as to patients with postoperative conditions.

Before leaving the subject of lung abscess and bronchiectasis, we wish to stress the importance of proper attention to the teeth, sinuses and nasopharynx. Infection at those points, allied with suppurative bronchopulmonary disease, has been observed often enough to impress us with the apparent relationship.

Finally, we should consider atelectasis, where immediate treatment depends upon the gravity of the symptoms. In cases of massive collapse, where the symptoms are marked, the patient should be treated as for shock, and artificial pneumothorax should be induced to overcome the marked negative intrapleural pressure which causes the symptom-complex typical of massive atelectasis. In the less severe cases, one should try turning the patient on the unaffected side and the administration of carbon dioxide and oxygen. In the surgical part of this symposium you will no doubt be told about the bronchoscopic treatment of atelectasis.

In closing, we wish it understood that no attempt has been made to make this paper an exhaustive treatise on the subject. Our purpose has been by citing the case histories to stress the importance of a thorough study of every patient for an operative procedure about the upper respiratory tract. Only in this way can complications be avoided. Complications that have a direct relation to operation must be diagnosed early and, as we have shown, it should be realized that medical treatment is limited. If this fact is remembered

and patients are individualized, the future will be marked by an appreciable decrease in the morbidity and mortality from lung complications following operation.

COMPLICATIONS FOLLOWING OPERATIONS ON THE UPPER RESPIRATORY TRACT.

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Newark, N. J.

In considering the treatment of lung abscess and bronchiectasis following medical or surgical procedures in the upper respiratory tract it is of paramount importance to visualize the under-lying pathology and to ascertain as nearly as possible the stage at which the process has arrived. Is the lesion still acute? Is there a foreign body present? Has the chronic stage been reached with an abscess cavity lined by a pyogenic membrane and surrounded by bronchiectatic cavities? Is the lesion near the periphery of the lung, or at the hilum, base, or apex?

Radiography is an important adjunct here and gives us the best evidence concerning the nature and extent of the involvement; also, it may visualize a foreign body if it be opaque. Naturally, a foreign body must be removed, or cure can never be effected. This can usually be done by the bronchoscopist and the rapidity with which symptoms disappear after the extraction is remarkable. It might be argued that every lung abscess should be bronchoscoped but I do not find it necessary; though it does require judgment to determine when the time has arrived for using the bronchoscope, and it is difficult to formulate any rule.

I shall, in this paper, use the terms *improvement* or *insufficient improvement* and I want to make these terms clear. In lung suppuration, we must be satisfied if the patient's condition shows even slight improvement, for such processes are slow to heal, the patients are very ill, and they will not tolerate much interference. We must, therefore, be content

with little signs of improvement and count them as gains in the right direction: a little lowering of temperature; a decrease in the pulse rate; an increase in appetite; diminished toxemia; lessened amount of sputum or sputum less foul; smaller area of involvement as shown by radiograph or physical signs; all such matters must be watched and taken into consideration. Every little improvement should be noted and counted as a gain. We must never rush in and become radical on slight indications. There are, however, certain complications which call for action and a determined stand, and most important among these is hemorrhage.

I have seen some patients whose condition might be called an abortive lung abscess. There was aspiration with infection at the time of operation or shortly thereafter but not sufficient or extensive enough to cause breaking down and liquefaction. Such patients are treated like those having lung infarcts or pneumonias; rest, supportive treatment and stimulation. The course may be stormy and very acute, with high temperature, rapid pulse and marked toxemia, but the recovery will be complete.

We have considered the so-called abortive type of lung suppuration, and the next is similar in onset. It may be less acute but does not clear up. There is continued coughing, expectoration, irregular temperature, sometimes pain. At first, this is treated expectantly, as outlined above, but if no improvement occurs in 10-14 days, some decision must be reached, especially if there is no expectoration and the abscess is shown by radiograph to be peripherally located; in other words, that there is an abscess which has not broken into a bronchus. Such a patient, in the consensus of opinion today, should be operated upon without delay, and the abscess drained externally before it ruptures into a bronchus. What is the reason for this? Because, after an abscess has broken through into a bronchus there is always danger of infection spreading by aspiration to uninvolved portions of the lung and a bronchial fistula, which is always slow in healing, and is to be avoided. In addition, there is the danger of

the abscess rupturing into the pleural cavity and causing an empyema. Strange as it may seem, patients with lung abscess complicated by spontaneous empyema seem to have a better outlook for complete recovery than those with an uncomplicated abscess. This statement does not argue in favor of allowing lung abscesses to rupture into the pleural cavity. In fact, it must, if possible, be averted. This paradoxical conclusion is probably due to the fact that only the strongest survive the initial shock of the invasion and that the abscesses are very small.

This brings us to the problem of opening the abscess and at the same time preventing an empyema. Naturally, the abscess must first be located definitely by physical signs and radiographs taken in various directions. Localized pain is of value because it usually indicates the point at which the abscess is nearest the chest wall. The area of approach having been determined, one or more ribs, for varying distances, depending on the size of the underlying abscess, are resected; preferably under local infiltration anesthesia, paravertebral block, or both. In all lung surgery it is preferable to have local anesthesia. Not all procedures can be carried through that way, but at least the first steps can be, and the later stages may be completed under general anesthesia. I use sodium amytal a great deal and find it markedly reduces the patient's anxiety and apprehension; giving it by mouth, 6 gr. about 8 hr. before operation, and again 3 gr. at 3 hr. before, and morphine sulphate gr. $\frac{1}{4}$ at $\frac{1}{2}$ hr. before starting the operation.

If, upon removing the ribs, we find the pleural leaves adherent and the pleural space obliterated, the abscess may be opened immediately with cautery or by other means. If the pleural leaves are free and the space open, a 2-stage procedure must be planned; first causing pleural adhesions, by suture, by packing iodoform gauze, or by some other method; and then, 5 to 7 days later, the abscess may be opened.

What is to be done if the patient does not improve and the abscess is not peripherally located or has broken into a bronchus? In

all such cases, in fact in all cases of lung suppuration with expectoration, postural drainage should be begun at the earliest time possible. To my mind, this is very important and should be deferred only if the patient is too ill to be moved about in bed. X-rays are helpful in locating the abscess and in that way indicating the best attitude for the patient to assume in employing this form of treatment. Special tables for tilting the patient have been constructed for this procedure but, usually, the patient is able, with a little practice, to empty the abscess by leaning over the side of the bed and rotating his body so that drainage will be most effectual.

Failing to show any improvement, as judged by lowering of temperature and pulse rate, increase in appetite, diminution of amount of sputum, or lessened toxemia, what shall we next consider?

Here, first in order should come bronchoscopic treatment, especially in the earlier stages of suppuration. Much can be done; the abscess emptied, strictures of the bronchus dilated, topical applications made; and, such treatment should be given a thorough trial unless the bronchoscopist feels he is not gaining ground. I must confess that I have formed no decided conclusions concerning the extent to which bronchoscopic treatment should be persisted in when dealing with pulmonary suppuration. We must bear in mind the underlying pathologic process, and that when the chronic abscess stage has been reached and the abscess has a lining membrane held apart by the elastic tissue of the lung so it does not collapse; or when there are numerous bronchiectatic cavities; the bronchoscope may empty these more or less completely but the pyogenic membrane remains and will always be a factor in reinfection or hemorrhage.

There are still other procedures which may be employed if the foregoing have failed to achieve improvement, and the condition does not warrant, or the patient is not in condition for, any of the more radical measures. An abscess near the base may be benefited by phrenectomy. At times, suppuration, even when distant from the base, has been markedly im-

proved by setting the diaphragm at rest. Artificial pneumothorax has also been tried and recommended, but is not without danger and, in my opinion is hazardous. The pleural leaves are separated in pneumothorax and should the lesion be near the pleura or one of the interlobar septums, it might easily rupture into the open pleural cavity and cause an empyema. Unlike the usual post-pneumonic empyema caused by pneumo, diplo or strepto-cocci, this type is complicated by the presence of anaërobes and, consequently, will be a more severe and destructive process.

For this same reason it is always dangerous to aspirate a lung abscess. The needle may, in being withdrawn, cause infection along its course and induce a deep cellulitis. I have seen several patients with extensive sloughing and Dr. Lilienthal reported a death due to such an aspiration performed by an unwary surgeon. If it is deemed essential to employ aspiration to locate an abscess, the operation for draining certainly should be carried out within a few hours.

Another procedure which may be considered here is extra-pleural compression, which, has usually been thought applicable to lesions at the apex. An incision is made anteriorly over the second rib or high in the axilla; 1 or 2 ribs resected; and the parietal pleura freed from the chest wall; thus compressing the abscess. The extra-pleural space is then filled with paraffin, fat or muscle.

Having failed to attain relief with the foregoing measures, we have resection by cautery and lobectomy left to consider. Dr. Graham, of St. Louis, has been very successful with what he terms cautery resection or destruction, performed as follows: the abscess or bronchiectatic area is first located; by radiograph or otherwise; 3 or 4 ribs over this area are resected for a distance of 4 in. or more, depending on the size of involvement. If the pleura is not adherent, the operation is stopped there and the wound packed widely and firmly but not, as a rule, sutured. If this packing is pressed firmly against the pleura, adhesions will form between the pleural leaves and obliterate the space. After 7-10 days, the abscess can be opened with a plumber's sol-

dering iron heated to a cherry red, in such way that its entire roof is removed and that it can again be firmly and widely packed. This wound should never be sutured on account of the presence of anaërobes which would cause a spreading cellulitis. If there is but one abscess, a single cauterization may suffice, but if multiple or bronchiectatic, repeated cauterizations may be necessary. Anesthesia is needed for the first stage only, as the lung tissue is insensitive to the cautery. In apprehensive patients it may be necessary to give a light gas-oxygen induction. The important point in this method is to cauterize widest at the surface, making a saucer-like cavity, and not to plunge the cautery point first into the lung; a procedure which would defeat the purpose of the treatment which aims at the section of as many bronchiectatic dilations as possible to gain adequate drainage and a broad exposure of lung tissue so that ample pressure may be applied by wide packing and strapping of the chest; the latter to prevent postoperative hemorrhage. Graham has removed lobes by this method and, in one case, nearly an entire lung.

Lobectomy may also be considered but is a procedure too involved and complicated to be adequately described in the time at my disposal. This is an operation with a high mortality rate and should be reserved for a last resort.

Thus far, I have considered lung abscess and bronchiectasis and discussed a treatment of both under one heading, partly to simplify matters and partly because the treatment is in most instances identical.

A few measures of therapy that I have not mentioned, include vaccine therapy, which is familiar to all, and the giving of salvarsan or neo-salvarsan to destroy any spirochetes present and to assist, indirectly, in eliminating the offensive odor. Some excellent work has been done with these preparations, and only last year, before this society, Drs. Altschul, Pons and Herrman read a paper on "Fusospirochetal Disease of the Lung", in which they gave a most comprehensive review of the subject and reported some splendid results. They suggested for patients with fetid ex-

pectoration that the sputum be carefully examined, by special staining methods, for spirochetes and fusiform bacilli and, if found in large numbers, intensive treatment with salvarsan or neo-salvarsan; for if seen early, gratifying results will often be attained.

The treatment of massive collapse, now that its pathology and etiology are understood, is comparatively simple. The tenacious plug of mucus in the bronchus must be removed. This can best be accomplished by the bronchoscope and usually one treatment will suffice. Other methods employed are: inhalations of carbon dioxide; changing position of the patient; expectorants; if the individual is very ill, stimulation and supportive treatment are indicated.

The one remaining lesion to consider, and that is not a complication limited to upper respiratory conditions, is lung gangrene. There is, of course, some gangrene accompanying every lung suppuration but I am here referring to a mass of lung tissue which has suddenly become devitalized. Little or nothing can be done except the usual stimulating, supportive and symptomatic treatment. The area may be cut down upon by resecting the over-lying ribs and opening the lung tissue with a cautery, which I have done but must say that it is far from satisfactory because there is no separation between normal and diseased tissue and no guide to the extent of the destruction. When liquefaction has set in, we have a different problem, which then comes under the heading of lung abscess.

In closing, I wish to state that I have not discussed all the known procedures employed in treating these complications. For instance, thoracoplasty for compressing areas of lung suppuration has been omitted, and I have not spoken of surgical emphysema which has been known to follow surgical intervention in the upper respiratory tract, but I trust I will be pardoned these omissions as it has been my aim to condense in this short article that which seemed to me the most important.

I might add that the most essential treatment of all is—the prophylactic. This is so old, and has been repeated so often that it

has become trite, but still, it is as important as ever. Some years ago, at a large clinic, not in this state, a new type of mouth gag with tongue depressor attached was employed in performing tonsillectomy and the number of lung abscesses following that operation increased alarmingly. It was discovered that the tongue depressor tended to hold open the glottis and allow aspiration of infective material. At another clinic, insufflation anesthesia with the patient in a more or less sitting position, was tried but, again, lung suppuration showed a marked increase. I cite these instances as arguments for adhering to sound surgical principles, and employing every known precaution and preventive. Lung suppuration being such a grave complication, let us employ every measure at our command for prevention.

DISCUSSION

Dr. Samuel B. English (Glen Gardner): As has been said, it is evident to all of us that *prevention* is the major proposition. See that the mouth is kept clean and prevent the entrance of foreign bodies. Those of us who are constantly interested in tuberculosis must remember all the time this old argument concerning the administration of anesthetics to tuberculous patients. Many of us have been of the opinion, for a long time, that patients who have an aptitude for tuberculosis should not be given ether.

Those who work in institutions have got to be impressed, whether we believe it or not, with the fact that we receive many patients who were apparently well up to 6 weeks before coming to the institution or clinic but in the meantime had some operation performed and are now asking for treatment of an active tuberculosis. Maybe it is because the anesthetic is improperly given—I don't know—but if that be true, there must be a good many people giving ether improperly.

We do not see *acute abscesses* at Glen Gardner, because such patients naturally go to the general hospitals. We do see *subacute and chronic abscesses* in patients who get into the institution as the result of incorrect diagnosis, but many of such conditions heal up without treatment.

Bronchoscopy undoubtedly helps a good many, and we have sent a good many lung abscess patients from Glen Gardner to Dr. Clerf and Dr. Orton. It seems to me they help those who have an abscess in the upper part of the lung, and those who naturally have good drainage, more than they do those with abscess in the lower part of the lung, possibly because they have to drain uphill.

We have tried to drain with the aid of lipiodol, but it is sometimes hard to get lipiodol into an abscess cavity. I don't know why, unless it be due to granulation tissue around the bronchus entrance. Lipiodol doesn't always help in locating abscesses as well as it does in locating bronchiectasis.

Postural treatment helps occasionally and I

have seen a patient with lung abscess, thought to be tuberculous, who, with postural treatment, discharged 1-2 pints of pus within 5 minutes.

We are told, generally, that the operation of phrenicectomy or phrenic evulsion, call it what you please, helps to close up cavities in proportion as they are in the base of the lung or in the lower level, but our experience at Glen Gardner leads us to believe that as the result of destruction or removal of the phrenic nerve, cavities in the upper part of the chest close better than those in the lower part; and, again, it seems to me that cavities closed as the result of phrenic evulsion or resection, or by destroying the function of the phrenic nerve, must do so because of something else than the mere raising of the diaphragm; that there must be some trophic, or some other, influence which effects a relaxation of tissue, perhaps, and that helps the patient.

As to artificial pneumothorax, I can't see any objection to its employment in a subacute or chronic lung abscess that is not located near the periphery.

Dr. Dieffenbach said that those patients whose lung abscess ruptured and produced an empyema, grew better. Wasn't it as a result of the therapy induced by the empyema? It didn't hurt, and they did get depression therapy in proportion as the empyema was treated.

I have seen 1 instance of lung abscess in the lower part of the lung for which a lobectomy was done. I hope that I shall never see another, for, personally, I would rather have the lung abscess.

We haven't had much success with salvarsan or vaccines. It seems to me, that the whole proposition of suppuration in the lung is based on the same principle as suppuration anywhere else. You must arrange some way to get drainage, and your patients will get better in proportion as you do get drainage. There is one thing you have to be careful of in dealing with those who have lung abscess and bronchiectasis: if you treat by phrenic nerve operation, you may sometime make conditions worse. In the raising up of the diaphragm, or relaxation of the lung, you get a tilt in such way that the bronchus from that abscess is closed off, and then you are worse off than you were in the first place. It is quite probable that many of these abscess cavities, or bronchiectatic cavities, that are helped as a result of phrenic nerve operation, are helped because they get a different tilt and the pus runs out into the bronchus better than it did before. Perhaps someone more conversant with phrenic nerve operations can tell which patients to treat that way.

It is not always easy to locate lung abscesses. I have seen 2 lung abscess patients recently who had been treated in good hospitals by the cautery-iron. In each case the surgeon got some pus from a bronchus at some distance from the abscess cavity, put in drainage tubes, and after 2 weeks sent the patient home; but 2 weeks after that the abscess burst from the original place where the surgeon went in with his hot iron. So, that operation is not always successful. There were no adhesions and I can't see that those patients would have been any worse off under treatment with artificial pneumothorax. Dr. Tuxbury, formerly at the Washington Municipal Institution, has a series of 12-15 patients whose deep-seated lung abscesses were treated with artificial pneumothorax, with mighty good results. It seems to me that it must be taken into consideration, though, as Dr. Dieffenbach says, it is a slow, drawn-out process; the

patient doesn't, usually, get well; and we must be satisfied with slight improvements.

Dr. Louis H. Clerf (Philadelphia): There have been a number of very interesting points brought up in this paper as well as in Dr. Pollak's discussion of the influence of anesthesia on lung complications. As yet, we do not know why lung abscesses develop, but, as Dr. Pollak has stated, they are far more common following surgical operations than from other causes. In a series of cases of pulmonary abscess that we reported, surgical operations preceded in 70% of the cases, and a majority of these were operations on the throat or in the mouth.

There has been some interesting work done with regard to anesthesia, that is, depth of anesthesia, with which you are probably all familiar. It has been definitely shown that if you put a patient under deep-anesthesia, abolishing the pharyngeal and laryngeal reflexes, anything that gets into the mouth will promptly go into the air passages; whereas, if the anesthesia is light, he will swallow instead of inspiring. That is an important consideration in the etiology of abscess.

Secondly, I want to mention the bacterial flora. It has not been emphasized that spirochetes and spirilla are commonly found in pulmonary abscess. Since our bacteriologist has improved his methods of examination we find that spirochetes and spirilla occur in 30, probably in 40% of our cases. The rate seems to be growing every year.

There is much diversity of opinion on the question of using arsenicals. I think the important thing is to start these early in the treatment. They are absolutely useless in late stages, and to be of value at all they should be given early. There is a question in my mind whether it would not be well to start with arsenicals as soon as we discover that the patient has had an acute pneumonitis, a process which I believe precedes all of our cases of abscess and bronchiectasis.

Foreign bodies have been mentioned as a potential cause of abscess. In our experience, they do not figure very prominently; that is, the demonstrable foreign bodies. In but a few cases of foreign bodies have we found pulmonary abscess, but I can assure you that any bronchial foreign body left any length of time, will be followed by bronchiectasis. That, I believe, is a very common cause of bronchiectasis.

With regard to bronchiectasis, whenever the signs and the Roentgen findings are unilateral, one has to think of some form of obstruction of a bronchus. It is remarkable how often one will find bronchial obstruction if bronchoscopy is done.

I am sure Dr. English will recall a recent case in which we found bronchial obstruction. There was nothing to suggest that there was bronchial obstruction, yet it is found so commonly in unilateral cases and occasionally in bilateral cases of bronchiectasis; I am referring to nontuberculous cases. The lesion most commonly is in the lower lobes and, if bilateral, is often associated with sinus infection. I think this is very important.

I know of nothing more difficult to treat than bronchiectasis. If bilateral, there is little to do except to clear up associated infection and carry out palliative measures. If unilateral, I believe that lobectomy will ultimately be the treatment of choice. It is amazing to observe the progress that thoracic surgery has made in the past few years.

Prophylaxis is important in all cases of pulmonary suppuration. Whenever a patient develops

a pulmonary infection, particularly following operation, though at any other time, and it does not clear up promptly, we ought to resort to some plan of treatment to aid the patient. I have seen a number of these patients, who had teeth extracted or tonsils removed, develop a pulmonary infection, or pneumonitis, and some of them have gone on to abscess formation, others to bronchiectasis. When we can prevent this, we shall have arrived. I believe that bronchoscopy can play a part.

Dr. J. Bennett Morrison (Newark): There is one procedure in prevention which, has not been referred to. In some of our largest hospitals in Newark there is a standing order in the Nose and Throat Department, that in every operation upon the teeth, or throat, under an anesthetic, a sand bag or large pillow shall be placed under the patient's shoulders so that blood will drop into the upper pharynx and not be aspirated into the lungs.

Dr. Paul Geary (Plainfield): I recently had the pleasure of seeing 11 patients of the group to which Dr. Clerf referred, and it was a very dramatic presentation when Dr. Alexander brought them into the room all at the same time. No statistics equal to those had ever before been produced. Dr. Shenston (?), of Toronto, was the nearest. Out of his first 12 lobectomies, he had 1 death, but the next 2 patients died, so he had 3 deaths out of 14 lobectomies.

I think that lobectomy in the treatment of bronchiectasis, as Dr. Clerf says, is the coming thing. Dr. Alexander has devised a new operation; making a window over the involved lung, about 2½ in. wide and 4 in. long, resecting 3-4 ribs, and removing the intercostal bundles. He goes in, frees adhesions around the involved lobe, winds some gauze around his rubber gloved finger and breaks down all the parietal pleura; then closes the pleura and the skin without drainage.

Dr. M. James Fine (Newark): On the question of treating non-tuberculous abscess by pneumothorax or phrenicectomy, I believe the former is preferable, but my experience is limited. I have had 5 patients; 3 did well and for 2 I had to take the air out. If you find that the patient does not do well while the lung is collapsed, it is just as easy to remove the air and let the lung come back, but when you do a phrenic operation and collapse the lung, it is permanently or indefinitely collapsed, and if the patient does not do well you cannot get rid of the collapse.

To effect drainage in non-tuberculous abscess, I usually instruct the patients to stand on their heads for 5 minutes 3 times a day.

Dr. Richard Dieffenbach: I agree, that anesthesia, and particularly its depth and the position of the patient, is very important in these operations. I remember seeing an illustration of the original Rose position, which showed the operating table on a platform and tilted in exaggerated Trendelenburg position, with the operator sitting on a small stool, so that any blood that came from the throat would run over the incisor teeth.

I am glad it was brought out that many lung abscesses will heal spontaneously or without radical surgery; that happens up to about 70%. Postural drainage is very important and so, also, I feel, is the bronchoscopic treatment.

Phrenicectomy. I am not particularly enthusiastic about, and so far as pneumothorax goes, I

think that in certain instances it is really the operation of choice after you have tried out postural drainage and bronchoscopic treatment, because where the abscess is located near the hilum of the lung, it is a very difficult, very hazardous and dangerous matter to drain that abscess through the chest wall and those patients do particularly well with pneumothorax.

As to opening these abscesses into a free pleural cavity. When they open spontaneously there must be a number of adhesions formed for protection. Dr. Alexander is very careful to get adhesions in the good lobe before he attempts to attack the diseased lobe. That is very important. I have seen such patients do very badly, and they die if the infection spreads to the pleural cavity which has no protection.

What was said about the arsenicals is true, that they really should be used before we are sure that we have an abscess.

THE HEART IN RELATION TO PHYSICAL EDUCATION

MADEL GRIER LESHER, M.D.,

Camden, N. J.

Most of my medical work has been done in China in coöperation with my husband, who is also a physician. As we have a daughter who was reared under adverse sanitary conditions in that country, and as I had been an examiner of other children who had been deprived of adequate medical supervision in their isolated districts and were, in addition, without parental care through 9 months of the year, I felt, when called to the American School in Shanghai, an added responsibility for the health program of those children and insisted upon a thorough physical examination as the initial step.

As a member of the Staff of the Margaret Williamson Hospital, Shanghai, the facilities of that institution were available. At the time for periodic inspection, they came to me, stripped, for posture, heart and lung examination and were then passed on to the eye, ear, nose and throat department where specialists examined them. As we had a great deal of unrecognized malaria in that country, with resultant blood sequels, the pupils were sent to the laboratory where a technician made blood tests and urinalyses. Their individual health and physical education program was

based upon the results of such a routine examination.

I came directly from that work into the Camden school system. You will all appreciate how greatly embarrassed I was when I found that we were not allowed to strip the children, even to the waist, to make examinations in our public schools here in New Jersey. Of course, I understand that this is not the only state with such restrictions. I was further amazed to find in our Camden Senior High School there was a set program in physical education where every girl, unless she were barred by a physician's certificate, had to conform to the same prescribed exercises or competitive games. Making due allowance for nervousness and other conditions, I found girls with cardiac rates, ranging from 140 to 170 at rest, who were playing basketball or hockey, or were running in relay races. Naturally, I could not pass girls with such accelerated heart action, or potential heart weakness, for such competitive and strenuous work.

In speaking of the situation to our Superintendent, and also to the Principal of our Senior High School, I said: "I cannot whole-salely pass girls for such a program. I feel strongly that these girls need physical education, but it should be modified to meet their physical needs rather than given as a mass proposition where everybody must engage in the same activity. They agreed heartily and instructed me to work out a program adapted to the physical needs of the girls. Right here, I would like to pay my debt of obligation and gratitude to Mr. Arthur E. Morr, Director of Physical Education in our Junior and Elementary Schools, whose consultations and advice were of special value in starting our Modified Program.

During the first year, the 2 physical instructors for girls in our Senior High School showed no interest in our proposed individualized program, I am sorry to say. So, during the Fall term, girls who were not "fit" for highly competitive and regular gymnasium work were excluded from the physical education program. By the end of the first semester, we had worked out a very simple system of modified exercises for these restricted pu-

pils. Soon they began to come to the medical room in tears, complaining that they could not go to Normal School after graduation unless they had a full course in physical education, which included competitive games.

After consultation with Dr. Elliott, in Trenton, and the Principal of the Glassboro Normal School, both endorsed the idea of a "modified program" and informed me that a girl partially restricted in her physical education program need not necessarily be barred from entrance into Normal; but, naturally, the physically fit would be given preference providing other qualifications were equally satisfactory.

After 2 years of struggling along, the Board of Education appointed a physical educator from Columbia who had been specially trained in corrective work—Miss Marjorie Van Horn. In addition, the development of our program has been greatly facilitated by the intelligent interest and unfailing coöperation of Mary B. Floyd, the school nurse, whose assistance and follow-up work have been invaluable.

In considering our present classification of corrective work, kindly remember that our inability to disrobe the pupils greatly handicaps us, and that until this Spring term we have not had access to the diagnostic aids of metabolism tests and electrocardiograms.

Our present program includes 6 types of classes (see accompanying chart):

(1) *Regular gymnasium classes.* Here we place girls who are physically fit; without any serious physical handicap. The work in these classes consists largely of organized games and other competitive activities, one ultimate aim being a knowledge of, and an interest in, athletics which will continue beyond school days.

(2) *Regular classes without team-games.* Girls with former mild cardiac conditions, who have been advanced from modified class-work, but for whom the tension of long-continued team-games seems unwise; who participate in all the games and activities of the regular class periods, but do not take part in after-school athletics. These girls are on the regular gymnasium floor, under direction of the regular gymnasium instructor.

(3) *Advanced modified gymnasium classes.*

Girls are placed in this group who are capable of doing all the work of the regular classes, except those games involving long-sustained effort. Archery and most of the class games are open to this group, as are volley-ball, captain-ball, croquet, miniature golf, etc., but not such games as hockey, basket-ball, and sprinting. The class is under the direction of the special physical director, as the size of the classes on the regular gymnasium floor makes impossible attention to an individual who may need closer supervision.

(4) *Modified gymnasium classes.* Pupils in this class have been so placed for some one of the following reasons:

- (a) Mild tachycardia—where the rate at rest ranges from 100 to 130 per minute.
- (b) Certain arrhythmias.
- (c) Functional heart conditions.
- (d) Slight thyroid enlargement without symptoms.
- (e) Advancement from milder work after sufficient reserve strength has been built up.

Exercises and games modified to remove probable strain, and simpler games not involving high nervous tension, are open to this group. Archery, croquet, indoor quoits, miniature golf, clock golf, ten-pins, and bowling at Indian clubs with a basket-ball—are indicative of the games provided. Suggestions of invalidism are avoided, though there is individual cautioning that the laws of nature cannot be ignored. The pupil is privileged to stop at any time that dyspnea or fatigue becomes evident.

Typical lesson plan for this group follows:

- (A) Marching; 2 minutes.
- (B) General exercises and foot exercises; 25 minutes.
- (a) West Point breathing, standing.
- (b) Rising on toes.
- (c) Arm-throw, kneeling.
- (d) Head circle, sitting.
- (e) Side scissors, lying.
- (f) (Health talk, 2-3 minutes.)
- (g) Mosher exercise.
- (h) Knee-chest exercise.

- (i) Foot circling, sitting.
- (j) Trunk forward bend, sitting.
- (k) Foot rolling, standing.
- (C) Archery and quoits; clog rhythms; 14 minutes.
- (D) Announcements; 1 minute.

(5) *Mild gymnasium classes.* This work is provided for pupils with:

- (a) Thyroid enlargement with symptoms.
- (b) Tachycardia—cardiac rate running higher than 130 per minute.
- (c) Mild organic lesions with good compensation.
- (d) Weak heart muscle.

In this group are placed also pupils with a physician's certificate advising mild exercise. Simple exercises, a limited number of times with frequent rest intervals, most of them done on the, or in a, recumbent position, characterize the work for this group. The instructor, during the rest periods, acquaints individual pupils with the types of exercise and hygiene especially needed. Pulse rates and respiration are carefully watched to ascertain response and limitations.

Typical lesson plan for this mild group:

- (A) Exercises for posture and general building up; 30 minutes.
- (a) Wall flattening—rest.
- (b) Sitting foot stretching—rest.
- (c) Back stretch—rest.
- (d) Lying foot circles—rest.
- (e) Slow alternate knee bending. (Health talk; 2-3 minutes.)
- (f) Knee chest position—rest.
- (g) Mosher exercise—rest.
- (h) Sitting trunk twist—rest.
- (i) Sitting and digging with feet—rest.
- (j) Standing West Point breathing—rest.
- (B) Bowling with basketball; 10 minutes.
- (C) Announcements; 2 minutes.
- (6) *Rest cases.* Girls in this group are assigned, during their physical education periods, to cots in the infirmary, to relax and sleep if possible. In this group are:
 - (a) Marked tachycardia, with symptoms.
 - (b) Thyroids, with symptoms.

- (c) History of rheumatic fever or sub-acute chorea.
- (d) Organic lesions with symptoms.
- (e) Convalescents from severe operations or infectious diseases.

This group, under the supervision of the school nurse, is given an uninterrupted double period for rest, and many sleep soundly during the time.

The following table shows the proportion of girls enrolled in the above classes during the past school year 1931-1932:

Total number of girls examined in Camden Senior High School during 1931-1932—1173.

Enrolled in regular gymnasium classes	893=76.13%
Enrolled in regular gymnasium, no teams	103= 8.78%
Enrolled in advanced modified groups	92= 7.84%
Enrolled in modified classes	49= 4.18%
Enrolled in mild classes	17= 1.45%
Enrolled in rest or infirmary groups	9= .77%
Not enrolled in any form of gymnasium program	10= .85%

Of the above enrollment, 177 girls, representing 15.08%, were under the supervision of the special corrective instructor. This represents an improvement of more than 12% since the initiation of our modified program in 1927-1928 when 27% of the girls enrolled in the school were unqualified for regular gymnasium work.

It may be of interest to note that the children with organic heart lesions were 32, or 2.8%; functional murmurs, 1.7%; arrhythmias, 1.44%; tachycardias (rate above 130), 3.67%; mild tachycardias (rate 100 to 130), 10.57%; thyroid enlargement, 2.7%.

Incidentally, I feel that a great deal more research work needs to be done in regard to our tachycardias. I am finding that, after examining 18,000 girls during the past 5 years and following their histories through the Junior and Senior High Schools, the heart rate seems to go up with a large number for a period varying from 6 months to 2 years before the onset of puberty and returns to normal in 3 months after the advent of puberty in some cases, while in others 1 to 2 years elapse before the normal rate is reached. In many of these girls no visible enlargement of the thyroid gland is perceptible. It certainly seems fitting that such girls should not

be subjected to the tension of competitive games and strenuous exercise. We have placed them in our "mild" or "modified" classes and gradually advanced them as their cardiac rates improved.

In connection with the work of my colleagues at Temple this past year, Dr. Wolffe invited us to send over certain girls from our special classes whom he kindly fluoroscoped and electrocardiographed for us. We believe that the visible findings of his orthodiagraph tracings will interest you as they have us (passed tracing and electrocardiograms of 4 girls).

Case No. 1. This girl was first encountered in the Junior High, presenting all the choreic symptoms and twitching so violently that at times I could hardly count her pulse. Rarely was her rate below 140. In the Junior School she had no physical exercise whatever. Upon arriving in Senior High she was placed in our Rest Class. She was decidedly nervous but as we could not strip her to map out her heart by percussion, and her own physician declared she was "highly nervous", we played safe by prescribing "rest". However, she seemed to grow worse rather than to improve. When Dr. Wolffe made the orthodiagraphic tracing, this (showing) is the type of heart he found—a perfectly normal organ, not a bit enlarged—and our diagnosis was neurocardiac asthenia.

She has been gradually advanced to "regular gym classes" and her twitchings have largely disappeared, while her cardiac rate is gradually becoming lower.

Case No. 2. This girl also evidenced symptoms of twitching and chorea, although she denied any history of rheumatic fever. She likewise was placed in our "rest group" and made decided improvement. As she seemed so much better, because of the psychologic effect, we advanced her to our "mild" class. At the time she was examined by Dr. Wolffe, her mother was present and stated that the child had suffered "growing pains". Upon being stripped to the waist, a soft systolic murmur was discovered, due to adhesions of the pericardium to the diaphragm. With her clothes on, it had been impossible to detect

the heart condition. When this was found, and her temperature showed a very slight elevation, the diagnosis of "plastic pericarditis" was reinforced by the orthodiagraph, which revealed a very definite enlargement of the left ventricle, as you can see from the tracing (showing). The condition was further confirmed by the electrocardiogram. The advice given was to continue to keep her in our "mildest group", although we had been considering advancing her, before we knew the revelations of the graphic tracings. Dr. Wolffe was loud in his praises of our provision for such girls through our "modified" and "mild" classes, and told the mother that she was fortunate to have her daughter in a school where such care was available.

Case No. 3. This girl is of the sturdy, robust type and gives one the impression of plenty of reserve energy; she will run where others walk and gives the appearance of being "the picture of health". We could elicit no history of rheumatism or chorea, yet she had a loud, systolic murmur, heard easily through her clothing and transmitted toward the axilla; also heard posteriorly; a definite mitral lesion. We placed her in our "mild group" although she chafed under such restriction.

Her mother was present also when we took her to Dr. Wolffe's clinic, and upon close questioning admitted her daughter had been troubled with tonsillitis at various times, but she gave no history of growing pains or rheumatic fever. Her tonsils had been removed before she came to us. The orthodiagraph showed (showing) very definite enlargement of the left ventricle as well as enlargement to the right of the sternum. She was told that with care at present, and gradual development of her chest wall, she stands a good chance of an average life span. She is continuing in our "mildest" class but appears entirely reckless outside of school supervision. It seems difficult for her to realize the necessity for moderation. However, we can intelligently refuse to permit more strenuous activities in her gymnasium work.

Case No. 4. A colored girl with a loud murmur, harsh in character, easily heard

through her clothing, loudest in the aortic area, but no elevation of temperature and no history of rheumatic fever or other severe, infectious disease. Although we could not determine the extent of her cardiac enlargement, we felt confident that it existed and placed her in our "mild group". At the time of the electrocardiographic and fluoroscopic examinations, at Temple, some believed there might be a luetic history although none could be elicited. However, the Wassermann test proved negative. As you see (showing), the tracing reveals an enormously enlarged heart. While we cannot hope for improvement in her case, we can still instruct her in regard to cautious daily routine. As she continues her usual home and school activities, it seems unwise to compel her to rest in the infirmary where cots are needed for those whom we can expect to improve. So, this girl is continuing with the simplest exercises and plenty of rest intervals in our "mild group".

As a result of this experience with the orthodiagraph and electrocardiograph examinations, through the courtesy of Dr. Wolffe, we feel that the availability of an orthodiagraph machine would very decidedly advance the benefits of our "modified program" in terms of preventive and remedial measures in physical education. Dr. Wolffe declares that our graded classes, under supervision of the medical as well as the physical education departments, will go a long way toward the prevention of serious heart disease. Accordingly, at the last meeting of our Camden Board of Education, the value and importance of purchasing an orthodiagraph machine was unanimously endorsed; but, of course, the cost makes it an impossibility at the present time. However, some means may be found, through Parent-Teacher or other groups, whereby our coveted diagnostic aid may become a reality sooner than we at present anticipate. In the meanwhile, Dr. Ralph Hollinshed, at Cooper Hospital, has graciously agreed to electrocardiograph children with cardiac weakness or potential heart disease that we may send him from time to time. Of course a copy of our findings in every instance would be sent to the family or private

physician, which would further aid him in the treatment of his patient.

In summing up, I would like to call attention to the fact that we thoroughly believe there are very few pupils who do not need physical education, *if it be graduated according to the individual condition*. But, whether this physical exercise is going to be "a tonic or a poison" depends largely upon the medical examiner and the physical educator.

Keeping in mind the danger of making neurasthenics of these children, I would like to quote from the paper of my colleagues in connection with their course at Temple: "With all this restriction of exercise, and paying attention to the slightest cardiac symptoms, we must realize that it is possible to make neurasthenics of the children. Therefore, it is the duty of the physical educator to emphasize the heart condition just enough to make the child willing to coöperate. The major stress needs to be placed upon the many things that the child can do, and teaching him to do them. Heretofore, the restriction has been too negative. In the past, the child has been told by the physician not to do anything he had been doing as play. Now, the teacher shows him new ways to play and helps him to like them. If this guidance is well done, the child will have almost no sense of restriction and certainly no thought of himself as an invalid."

In closing, I would like to give a still further summary:

(1) More thorough and careful examinations should be made of every child in school.

(2) There should be a law permitting the stripping to the waist of any pupil, in order that a thorough examination be possible.

(3) Exercise, when properly handled by a physical education teacher who is interested and intelligent enough to interpret correctly a physician's diagnosis, can be used as a very beneficial remedy for the treatment of potential or actual heart conditions.

(4) Since the size of the heart governs, in most cases, the decision concerning the amount of exercise advisable, every high school of any size should be equipped with a fluoroscope, which should be used as a matter of routine in the careful examination given to each child. When this is impractical, there

should be some clinic in the city or county, equipped with the machine, which will so closely coöperate with the schools that the medical inspectors could refer to it pupils to be examined. I am planning to go before the County Medical Society to make it clear to the family physicians that we are not prescribing anything and that copies of these fluoroscopic tracings or electrocardiograms will be sent to them, in reference to their particular patients.

(5) A restricted program for those needing it should be arranged to take the place of gymnasium work, and a close watch maintained over all such children.

(6) The school rosters, when necessary, should be adjusted to the special needs of the child. For instance, a child who is in those "mild" classes should not be asked to take classes in the regular curriculum that will necessitate climbing 2 or 3 flights of stairs, where there is no elevator.

Lastly, you may be interested to know that of the 1173 girls examined in our Camden Senior High School this past year, I, personally, would exclude only 2 from our program; although, of course, when the family physician sends a certificate requesting "No exercise" we always honor that request.

KEEPING THE SCHOOLS OPEN WHEN POLIOMYELITIS IS EPIDEMIC

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Union City, N. J.

In spite of advances made in the field of preventive medicine, we are still groping in the dark as to the true causative agent of anterior poliomyelitis. The fear engendered in the minds of the people during an epidemic of this disease is so intense that it takes the form of a condition bordering on hysteria. It is on this account that so many and varied measures have been proposed for control and prevention of anterior poliomyelitis. According to Frost, evidence of contagion is lacking in 75-90% of cases. Consequently, the ques-

tion—to open or not to open the schools during an epidemic of anterior poliomyelitis—is one that the school physician or health officer must confront. His reply must be frank, fearless and straightforward and based on scientific principles, common sense and tact. Frequently his answer is merely a matter of formality, the question having been taken out of his consideration by the clamor of public opinion or pressure brought to bear by those in authority. During the recent epidemic (1931) a number of municipalities in this and neighboring states postponed the opening of schools in September for periods varying from 10 days to 3 or 4 weeks. Many other towns and cities opened on schedule time. To the minds of the public in general, such varied procedures are confusing. Bearing in mind at all times that protection of the school child and prevention of the spread of this dread disease is of paramount importance, which method of procedure is the correct one? Is the spread of epidemic poliomyelitis checked or in any way affected by keeping the schools closed, and is it dangerous to open the schools at such times?

This is not the time nor the place to go into the etiology or epidemiology of the disease. What we are concerned with is the school physician's situation in deciding the question presented. We do know that in the epidemics of 1916 and 1931, and for that matter during the years when the disease was not epidemic, poliomyelitis made its appearance at about the time when the schools were closed and lasted until late in the Fall, the height of the disease being reached about the middle of August.

In the control of quarantine for this disease, children are usually excluded, if they have been exposed within 14 days. According to Stimson: "There is ordinarily no public health necessity for closing a school in case of a school exposure. In the recent epidemic in Ottawa, the schools were kept open and the incidence of the disease among the children of school age who were kept out of school was proportionately as great as among those who continued in school."

Union City has 11 public schools, with a

population of 10,000 school children. For about a week prior to the opening of schools, the press prepared the public to demand that opening of our schools be postponed, citing the good examples set by other municipalities, and New York City in particular. At a meeting of the Board of Education a few days before schools were scheduled to open, representative citizens, including lawyers, doctors, and the clergy, were present to argue the question. The entire medical staff of our schools attended and our city health officer was invited to be present. One could see in the arguments presented by some of our parent-citizens, that hysteria and fear prompted them to demand delay in the opening of the schools. Even my own medical staff, with one exception, differed with the writer, who advocated opening schools on schedule time. Our city health officer was the only other doctor who took a similar view. Most of our friends pleaded for at least 10 days of postponement. The Board of Education finally decided to open the schools on schedule time.

Our children were carefully inspected daily for 2 weeks by our doctors and nurses, and teachers were instructed in the early signs and symptoms which they should look for in their charges and requested to send all suspicious cases to the nurse and doctor for verification. It is true, that a greater number of children were excluded for the slightest cause than would ordinarily be the case were poliomyelitis not epidemic. But our schools kept going.

We watched our neighboring towns that postponed the opening of schools. Two other towns, in addition to our own, in our county likewise opened their schools on time. And now we were curious to see what would happen. In the towns where the opening of schools was delayed, new cases were reported from time to time. In our city for the 2 weeks period of intensive inspection and observation, 2 cases, 1 of doubtful diagnosis, developed in widely separated schools. Neither child developed paralysis. Evidently, the opening of schools failed to show any relationship to the development of new cases and cannot at this time be regarded as a source of danger.

It is amusing to note the precautions that were issued by school and health officials in

those communities where the opening of schools was postponed, when the schools were re-opened. Assemblies were prohibited either in the playground or auditorium. Children were cautioned, when dismissed, to go directly to their homes without gathering or loitering on the streets. On what scientific data were such instructions based? Why was the opening of schools in some communities postponed for 10 days, in others 2 weeks, in still others for 3 or 4 weeks? Did not the assemblage of pupils in their respective classes constitute in itself a gathering or an assembly? What difference does it make whether you have an assemblage of 30-40 children in a classroom or 1000 in a large, well-lighted and properly ventilated modern auditorium? The very nature of opening school constitutes a call for assemblage.

Now let us see what other health measures were promulgated in those communities where the opening of schools was postponed—for the purpose of protecting the school children and checking the spread of this disease. To my knowledge, none. The movies and theaters were not closed. No restrictions were issued by those in authority that children should not be permitted to enter any places of amusement. Where, then, is the logic of closing the schools under such circumstances?

According to the best authorities, the exact cause of the disease is not known. That the virus is found in the upper respiratory tract and in the discharges of the nasopharyngeal mucosa is no more reason for the closing of schools than would an outbreak of rhinitis or tonsillitis or pharyngitis be a cause for school closure. The literature is very scant on the subject of poliomyelitis as related to school management.

In a report on the poliomyelitis epidemic in Manitoba, in 1928, by the Medical Research Committee of the University of Manitoba, we note that "the opening of the city schools, public and parochial, of private schools and Sunday schools, was delayed 1 month, a procedure which was decided upon at a meeting of the Provincial Board of Health with the School Authorities"; and this is the significant part of the report which states that: "It was recognized that the measure was of doubt-

ful efficacy, as regards prevention of spread. It was valuable, however, in the sense that it went a long way to allay public alarm or anything in the nature of panic; indeed, it was demanded by a large number of our people." Patently, fear on the part of the public was the sole reason for postponing the opening of schools.

In order to satisfy my own conviction, as well as that of others, that ours was a step in the right direction, I sent the following questionnaire to 20 large cities scattered over the entire country and to most of the capitol cities of Europe. The questionnaire was as follows:

I am very much interested to know what your policy is with regard to closure of the public schools in the event of an epidemic of anterior poliomyelitis. Do you believe:

- (1) That the interests of public health are best conserved by keeping the schools open, or
- (2) Are these interests best conserved by keeping the schools closed?
- (3) If the school term begins in early September, would you postpone the opening of schools in the face of an epidemic of poliomyelitis and, if so, for how long a period?
- (4) Would you consider unusually warm weather sufficient reason to keep schools closed in the face of an epidemic?

We have been confronted with a moderate epidemic of poliomyelitis in this part of the country since the schools were closed in June. Our schools were scheduled to open on September 9. A number of towns in this state postponed the opening of schools for several weeks. Our schools were opened on the date scheduled, upon my advice. We found that this had no effect upon the epidemic. Only 1 child was found to have developed poliomyelitis 3 days after the opening of schools, out of a school population of approximately 10,000.

I was particularly anxious to know what mode of procedure was pursued, relative to the opening or closing of schools, in those widely scattered areas when epidemic poliomyelitis was prevalent. It is interesting to note that in nearly every locality, with the exception of only 2 European countries, the opening of schools was not delayed.

Solomon states: "The Boston public schools were opened on schedule this Fall despite the fact that there was prevalent a mild epidemic of this disease. It is the opinion of this department (Department of School Hygiene), concurred in by the State and City Health Departments and leading physicians, that the closing of schools during an epidemic of infantile paralysis has no effect upon the spread or control of the disease. In view of the fact that infantile paralysis is still being treated in open wards of hospitals together with children not suffering from the disease, and because there is not a single case on record of a child contracting the disease in an open ward, we feel that the

opening of schools would not be responsible for the spread of the disease. On the contrary, if schools were closed, children would congregate on the streets, in motion picture houses and other places, that would result in closer contact than if they were in school. In school, with frequent inspections by the physicians, the children are, we feel, more safely guarded. We, therefore, feel that schools should be open during an epidemic of infantile paralysis."

Dr. Jacques P. Gray, Assistant Health Officer of the Department of Public Health in the city and county of San Francisco, in his reply states: "It is our belief that the interests of public health are best conserved by keeping the schools open. * * * Should there be indications of an impending outbreak of poliomyelitis, before the opening of schools, we should feel more comfortable to have the schools open for the reason that closer contact would be had with the school population. While unusually warm weather seems to have a definite relationship with the incidence of this disease, we are of the opinion that even this would not justify our closing the schools. Your experience certainly has borne out the soundness of your judgment, and should the same situation have arisen in San Francisco, I am certain similar action would have been taken."

My questionnaire addressed to the American Public Health Association was forwarded to Dr. Haven Emerson for reply, and he states:

"I can only express my personal opinion as to the 4 questions you ask.

(1) Except in sparsely settled rural regions where school is the only place of assembly of children, I consider that the interests of public health are in almost all circumstances better conserved by keeping the schools in session during the presence of acute communicable diseases.

(2) There is first-rate evidence in municipal, suburban, and almost all rural school health practice that daily inspection of all children at school, with the school in session, does more to control communicable disease than the scattering of children and their uncontrolled assembly in places of public amusement or on the streets with the schools closed.

(3) Only the necessity for conceding to pressure of popular fear, hysteria, or political attack, can justify the postponement of opening public schools later than the usual date in September in the presence of an epidemic of poliomyelitis. Probably the simplest concession to make is that those parents who fear infection of their children will not be forced by compulsion of the Truancy Law to bring their children to school while there is marked prevalence of poliomyelitis in the vicinity.

(4) The trend downward of the epidemic incidence and the history of previous epidemic preva-

lence in the community are better guides than unseasonable weather in September as an excuse for closing schools in the presence of poliomyelitis.

I think it is quite safe to say there is no evidence in any American experience that the assembly of children in school has been a determining factor in the origin, recrudescence or prolongation of an outbreak of epidemic poliomyelitis. Your experience with opening schools on the regular date is duplicated by that of Bronxville, where the same procedure was carried out."

Dr. Le Roy A. Wilkes, Director of the Division of Medical Service of the American Child Health Organization, reports that at the Montreal Meeting of the American Public Health Association, in 1931, the majority of State Health Officers were inclined to "open the schools as per schedule".

Dr. Charles J. Haines, Chief of the Division of Communicable Diseases, of the Philadelphia Department of Public Health, states that the interests of public health are best conserved during an epidemic of poliomyelitis by keeping the schools open. He further states that modern public health control of disease in school children at the present time in most of the large cities is unusually good and that there is less chance of a case going unrecognized for any long period of time than if the children were at home. In Philadelphia, the opening of the public, parochial, and private schools was not postponed and no unusual increase in the incidence of anterior poliomyelitis could be traced to the opening of the schools.

Stevens, of the Los Angeles Department of Health, reports that nothing is gained by closing the schools in epidemic poliomyelitis, because many incipient cases will be picked up in the schools and sent home that would otherwise go unrecognized. He believes that there is little danger in its spread to other children.

Commissioner Bundesen, of the Chicago Department of Health, reports that the opening of schools early in September 1931 was not delayed nor has such postponement been practiced for the past 12 or more years. He believes that children have better supervision through school inspection than would be the case in the home. As more than 90% of all cases occur in children under 10 years of age, and the majority of these under 5 years of

age, it is of doubtful utility to close the public schools, especially for the older children.

Peters, of the Cincinnati Board of Health, questions what is to be gained by the closing of schools during an outbreak of poliomyelitis. He is inclined to believe that better supervision can be exercised over children when they are in school. He has found no concrete evidence to show that the disease is spread by school children. They have never closed the schools in that city or delayed opening on account of poliomyelitis, and in the several outbreaks that they have had since 1911 they saw no justification for such procedure.

Crowley, Senior Medical Officer of the Board of Education for England and Wales, states that the interest of public health would best be served by keeping the schools open during an epidemic of anterior poliomyelitis, provided the local education authority's staff of doctors and nurses is numerically sufficient to exercise close supervision over the school children. Such supervision involves daily visits to the schools and to the homes of children who are absentees from school. In this way, abortive cases may be more easily recognized at an early stage, whereas, if the schools are closed it is usually impracticable for every child to be seen by a skilled observer. He states further that the board's policy is an application of the generally accepted view that an infectious disease can, as a rule, best be controlled by keeping the schools open, unless there is found to be something inherent in the schools themselves tending to favor the spread of infection. For this reason, no changes in the application of a principle are made in England by reason of seasonal or temperature changes.

The Medical Director of the Department for Social Affairs of Oslo, Norway, under date of March 2, 1932, states:

"In general, we may say that the closing of schools is not considered an effective remedy to combat poliomyelitis, especially in cities and thickly settled localities where children will be in close contact with each other outside as well as in school. Under normal conditions, the health boards in cities and thickly settled localities would hardly resort to the closing of schools during an epidemic of poliomyelitis even if this should occur immediately before the opening of school after summer vacation."

Ruckner says that we must admit that if the schools are permitted to open under an accurate, active medical inspection, a great many children will be better off than if they were forced to stay at home.

Sir George Newman, in a brochure issued jointly by the British Ministry of Health and the Board of Education, under the heading "School Closure", states:

"It may be safely laid down as a general principle, that if the power to exclude individual children be used to the best advantage, it is only in special and quite exceptional cases that it will be necessary to close a school in the interests of public health." And this is of particular significance when he states further that: "School closure may generally be regarded as an indication either of failure to make proper use of the more discriminating and scientific method of excluding individual children, or of inadequate coöperation between the public health and the school authorities. It interferes seriously and unjustifiably with the education of the children, and it deprives the Medical Officer of Health, and the School Medical Officer, of information respecting attacks in their early stages or illness of a doubtful nature which would be obtainable if the schools were kept open." The exceptional conditions which may justify the closure of schools, he states to be as follows:

- (1) Infectious sickness in the teacher's family involving risks to the scholars.
 - (2) Disinfection and cleansing after children suffering from infectious disease have been in attendance.
 - (3) The rectification of sanitary defects of a nature likely to contribute to outbreaks of disease.
- These general principles apply to any communicable disease, including poliomyelitis. His summary is especially significant when he states: "Closure of a school is not justified unless all the following conditions are simultaneously present; namely, unless (a) evidence points to the continued meeting of children in school as a source of infection; (b) cases of infectious disease continue to occur after every effort has been made to discover the infecting cause; and (c) there is good reason to expect that closure will considerably reduce the likelihood of exposure to infection."

CONCLUSIONS

From the above considerations, it is patent:

- (1) That closure of schools does not affect the incidence, origin, recrudescence or prolongation of an outbreak of epidemic poliomyelitis.
- (2) That the interests of public health are best conserved by keeping the schools open.
- (3) Delay in the opening of schools at the beginning of the fall term is an unnecessary waste of time and adds nothing to the conservation of the health and welfare of school children.
- (4) Closure of schools would deprive us

of the chance for the observation of symptoms of this disease in its earliest stages which is of great importance in checking its spread.

(5) Unusually warm weather is not sufficient cause to keep the schools closed or to delay their opening on schedule time.

DISCUSSION

Dr. Frederic J. Quigley (Union City): I think that we all feel Dr. Schapiro must have put in a lot of time to prepare this paper. I, personally, know something about the preparation, how he has written almost all over the world to get facts to substantiate his premise that schools should be kept open during an epidemic.

Of course, I think that he has made out a good case, but I wonder if an equally good case could not be made out to the contrary. After all is said and done, nobody knows yet very much about how poliomyelitis is contracted. About all we know is that the infectiousness is in the upper respiratory tract. It must be remembered, too, that in the last epidemic we were dealing with a poliomyelitis which was not at all severe—not like that of 1916.

A lot of the argument presented, it seems to me, could be offset by the fact that we are dealing with an attenuated form and perhaps only those who are particularly susceptible would have contracted it.

As to closing the schools, I do not think that in an epidemic you can disregard the feeling of the public, or as Dr. Schapiro referred to it, the hysteria. If I were a public school physician in charge of the schools, or a health officer, and as a result of my action in keeping the schools open there would be a sudden increase of poliomyelitis, I certainly do not think I would feel like practicing in that town very long afterward.

The whole question, as I see it, is this: the probabilities are that it is contracted like any other contagious disease, by contact, and certainly with any other contagious disease we exclude those children from school upon the slightest indication. On the other hand, none of these other diseases have such terrible end-results. So, the extreme measure of closing the schools seems to me to have some warrant. The doctor says that there is no more reason for closing the schools than there would be for tonsillitis or rhinitis. I do not think he would contend that if he could remove the contacts of rhinitis and tonsillitis, that he would not have done a great deal to prevent the rhinitis and tonsillitis from spreading. The end-results of those diseases do not amount to very much, ordinarily, but you certainly cannot make that contention with regard to poliomyelitis.

While I do not think that anyone can seriously controvert his argument in favor of his position, on the other hand, I do not think that our knowledge of this disease is of such a nature that a good argument can be made out for keeping the schools open.

Dr. B. T. D. Schwarz (Jersey City): One of the practical questions involved in closing schools during an epidemic of poliomyelitis, is determining when the infection occurs. Schools are not ordinarily closed when measles is prevalent, but I think if we should investigate the mortality statistics in measles we would find a far greater number of deaths occurring from measles than from poliomyelitis. Acute anterior poliomyelitis is

a very sensational disease but—how does it occur and in what way is it transmitted?

Measles, we know, generally is transmitted before we know the patient has measles. There is nothing to distinguish measles from an ordinary, common head cold in the beginning. Acute poliomyelitis manifests itself in many obscure ways that are much harder to determine even than measles.

While slight upper respiratory infections precede the recognition of poliomyelitis generally there are other types in which the symptoms are mainly digestive in their features which make it, again, far more difficult to recognize early enough to prevent contacts from being made in the most dangerous time.

When an individual is recognized to have poliomyelitis, that individual is at home and away from contacts. It is no longer a question of spreading it and extending it to other children home from school. They already have been exposed. It seems rather a foolish thing to shut the door after the horse has run out.

We should also remember that the most spectacular feature of acute poliomyelitis—paralysis—is a very minor occurrence, for, I think 80% of poliomyelitis cases do not terminate in paralysis. That is the spectacular feature, when it occurs, and that is one of the reasons why the term infantile paralysis is really a misnomer.

It is a matter of record that a good many men who specialize in the field of epidemiology and infectious diseases regard poliomyelitis as being a very common disease but a disease that is so mild, as a rule, that it is not recognized. As a matter of fact, some authorities on poliomyelitis have recommended that where the use of known convalescent serum was precluded by absence of the finding of such individuals, it was advisable to take the blood serum of any adult because the chances were that any adult had an infection of poliomyelitis at some time, even though he did not know it.

If these are facts—and what I am quoting is the opinion of some of the leaders in the field—it would seem that Dr. Schapiro's thesis, that the schools should remain open, is correct.

Concerning the fear that the people hold regarding the spread of this disease, I just want to make this interesting observation with which I think you will agree. At the termination of the summer, when school is to begin, many families find the weather rather warm. They are out in the country and are loath to come back with their children to the city. They say it is so fine in the country that they would like to stay there longer. I think the fear expressed about the children getting poliomyelitis after they get back to the schools, is really a formidable argument that they advance as a good excuse for having the schools closed so that they can stay away a little bit longer.

Dr. John J. Pagliughi (Union City): I was one of the physicians that Dr. Schapiro spoke of in his paper who was opposed to opening the schools last Fall. My reason for that was based on the fact of our lack of knowledge concerning its transmissibility. We see large groups of children attacked at one time, and then we have contradictory evidence of that where we can see them in open wards not contracting the disease. This puts doubt into our minds and we do not know where we stand. We know nothing about the organism, whether it is a filtrable virus or a streptococcus. We do know that the greatest incidence of the disease is

before the age of 5 years, that 90% of all cases occur in that period of life.

I would suggest that if the epidemic reaches severe proportions in any one school, that school should be closed; if it reaches severe proportions in the town as a whole, children under the age of 8 should be excluded. I think that would satisfy those who are politically minded, would protect the Board of Education and the school physicians, and would help all concerned.

Chairman Ireland: It seems to me that if school physicians organized within the county would discuss what they would do in the event that another epidemic came, how they would handle it in a scientific manner, and then meet with school people and with parents, and make a public announcement of a careful campaign all mapped out, and with the right to call upon the profession, not in the schools, for reinforcements and backing; then, on top of that, have regular inspections in every classroom the minute school opens and teachers have been told what to exclude, we could all act more intelligently. Instructions for everybody could be printed and distributed so that each could do his part.

Dr. I. W. Knight (Pitman): There are some circumstances under which it may be justifiable to close schools, not only in poliomyelitis but in any communicable disease. When, as in some small and rural communities, there is practically no medical inspection in the school to detect and control disease infection, and when an investigation has shown that the cases are apparently coming from a certain school, then it may be advantageous to close that particular school.

In the communication of poliomyelitis infection it is not altogether a case of contact with children. This infection affects adults quite as often as children. Cases are not ordinarily traced directly to another case. It has been my experience that if you are fortunate enough to be able to trace one case to another, that practically always there will be in the chain of incidents some links representing abortive cases which were entirely unrecognized until you worked backward from a case. These abortive cases may even be the connecting links between 2 paralytic cases in 1 home. They may occur in the grandparents—I have seen a woman of 65 affected—or the adolescents, or those of any age.

A great many of these so-called abortive and non-paralytic cases are not seen by physicians. The illness lasts 3 days and recovery is prompt and complete. But these persons may spread the infection for some time after their recovery.

Immune serum was used rather extensively in this state last year. While the reports are not yet available, it is understood that the results were not encouraging. It is probable that the relief of spinal pressure was as effective for good as was the immune serum.

Chairman Ireland: It is interesting to note that there are two sides to every question, else life would not be worth living. Dr. Knight comes from a rural section of the state where he is one of the State District Health Officers, and it is true that many schools in his territory do not have proper school health supervision.

AN ADDRESS ON PRACTICAL AIDS TO THE DIAGNOSIS AND IN THE SURGICAL MANAGEMENT OF MENINGITIS FROM THE EAR OR THE NOSE

WELLS P. EAGLETON, M.D.,
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During the past few years at the Newark Eye and Ear Infirmary and the City Hospital, there have been treated more than 400 patients with meningitis, the origin of which was traceable to the ear or the nose. Probably, this is the largest number of such patients that has occurred in any one service in the country and this because a group of us have been interested in the subject, wondering if we could not find a means of securing better results with a disease that ordinarily has a mortality rate of nearly 100%.

Among the 400 patients, we have operated on 224, of which not quite 32% have recovered. As with all statistics, these are "to be taken with a grain of salt", for any statistics may be compiled in a way to make a fine showing. If I told you that in 106 successive cases we had nearly 60% recoveries, you might say—"That isn't true." But, it is a fact. However, I must add that with the next 100 patients we had very few recoveries, in spite of our greater experience.

There is another qualification about the statistics; what we call *meningitis* another man might call *meningismus*, and he might say that what I called meningitis was not meningitis at all; that the patients who got well never had meningitis. And, I must admit that a great many of the patients that we operated on had not a fully developed meningitis at the time of operation. Our contention is that *meningismus is*, in the majority of cases, the first stage of *meningitis*.

Mode of invasion. Given a suppurative inflammation in the nose or ear, there are 2 ways in which the infection may enter the cranium, and become meningitis. One is by *direct extension*, where the infection meets at once the arachnoid, which is a part of the general protective mechanism; it is there to pro-

tect the brain and, immediately upon the approach of any infection, an effort is made by this arachnoid to wall off the infection. If this were not so, the vast majority of people with "running ears" would die of meningitis, providing there existed an erosion of the bony plate dividing the ear from the brain, or of the posterior wall of a nasal sinus.

But, there is another class of cases in which the infection does not advance by direct extension but enters the dura by means of a thrombophlebitis; *i. e.*, by a septic inflammation of small veins. This thrombophlebitis travels at first through the bone; then goes through the dura; and, at last, enters the soft meninges.

When the arachnoid walls off infection that is in a cistern, the patient may be saved by surgery; but if the infection extends through the pial veins into the subarachnoid spaces it is much less likely to be limited by the arachnoid. In these last mentioned patients we have a positive culture and no operation up to the present time has saved them.

Thus, there are two varieties of meningitis, one of which is by direct extension that has a walled-off area of infected fluid in a cistern; and this, if you recognize it early enough, drain the infected area (just as you drain pus elsewhere in the body—drain not the whole arachnoid space but only the area involved) and then assist nature in building up the immunity, you will cure your patient.

That this occurs, we have ample evidence. We have had numbers of patients for whom we did a lumbar puncture and the fluid was cloudy. We operated upon them, removing the septic bone, made an opening in the arachnoid, and liberated a large quantity of fluid. This fluid was often pure pus and when it was simply cloudy, it, as a rule, contained microorganisms. However, if you wait before operating, and wait long enough, the barrier of protective arachnoid adhesions will be broken through and there will be numerous microorganisms in the fluid from the spine. Now, if you operate, only a few patients will recover, but still, a few will.

Patients whose infection extends through the veins will die; no matter how early you

operate on them. After the infection is in the arachnoid veins you cannot stop the spread of that infection unless a remarkable and a rare thing occurs; that is, unless nature causes an abscess to develop by the breaking down of the thrombophlebitis in the pial vein. That occurs now and then, and we have found a number of such at autopsy. We have never cured one as yet, but we feel sure we will be able to do so in time.

How can we recognize that condition of localized arachnoid space meningitis which is curable by operation? If our premise is right, that there is first of all a walling off of the arachnoid infection, then it is important that we make the diagnosis early.

Symptoms. As we have gone along in this work we have learned a number of things of great practical importance. First of all, we think that any person who has a *running ear*, together *with pain in his head*, has some type of *meningitis*. If a patient has inflammation in his ear, the ear hurts, and he has a fever, and he feels sick, but, he *does not have any pain in his head*—the trouble is in his ear only. Anyone with a running ear and pain in the head has something wrong inside the meninges; pain in the head shows that it is potentially a case of meningitis. But it does not follow necessarily that the patient is going to die of meningitis.

Any aural patient that vomits is a potential case of meningitis. If you have a pain in your ear, you do not vomit. Children frequently vomit after eating indigestible food, but not because of pain in an ear. There is a peculiar thing about vomiting, however. It is our experience that the vomiting which occurs in the early stages of meningitis is always attributed to some "indiscretion of diet", because the child had previously vomited from something indigestible. When the child vomits the parents always ask—"What did we give it yesterday?" "Oh, yes, he had ice cream (or something else), and vomited immediately afterward." They always attribute vomiting to something beside the real cause, that is, to irritation of the brain, because people are so in the habit of thinking that vomit-

ing must be from a disturbance of the stomach. Every child has vomited a number of times during its lifetime, so you must not insist to its mother that the child's vomiting comes from meningitis. Her answer would probably be—"But, my child vomited 2 or 3 days ago, and the week before that; in fact, it is always vomiting."

The practical point is, that given a running ear, or pain in the ear, followed by headache associated with vomiting, that child is a potential case of meningeal irritation.

There are any number of little things that we have learned as we have gone along, and that are of help in the early diagnosis of meningitis. You have got to learn to interpret the little facts of sickness. First, and most important, is this: Here is a child that you think has meningitis. You think he has meningitis because he has a running ear, or has a running nose, with what possibly may be meningeal symptoms. To come to a diagnosis early you must elicit all the facts in chronologic order. To do this, we take a calendar and say to the mother—"How long has the child been sick?"—and then we go over each day, and from data thus obtained, it is possible not only to make a positive diagnosis but also to construct a mental picture of what has happened.

I speak strongly about this, and I have spoken of it many times, but the point is generally ignored. Usually, in my consultation practice, this is what occurs. The doctor is a very good doctor. He has done a large number of mastoid operations. The history that he gives is, usually, about as follows: "Jimmie had an earache. I was called in and I did a paracentesis. The ear ran and I thought it was all right. However, one day I was sent for in a hurry because Jimmie had had pain during the night. He was tender over the mastoid, so I did a mastoidectomy and I found the cells destroyed but he had a 'stormy time' immediately after the operation, with some fever, but he went home from the hospital on the eighth day feeling very well. Suddenly, yesterday he developed these symptoms." I say this without any disrespect, but that is the average history as given to me in consul-

tation by the average otologist in a case that has developed meningitis.

How can we obtain a proper history? We take a calendar, and we say to the mother—"When was Jimmie taken sick?" It is surprising how hard it is to fasten her down. However, we have found this, you can always get a start by saying—"When was the last holiday?" Well, now we are in June. The last holiday was Decoration Day. "Was Jimmie well on Decoration Day?" That is the day that daddy was home, and they can remember that; also, they can usually remember a Sunday. And then the mother will pipe up—"Oh, yes, but 2 days before Decoration Day Jimmie had a pain, and he vomited, or he had dizziness." From that, you take it that it was 2 days before Decoration Day that the meningeal irritation started. "Was he in school 2 days before?" "No, he was not in school because it was 2 or 3 days before that when he had a sore throat, and that night he said his ear hurt (or he vomited), but the next day he was all right." "When was the last day he was at school?"

That is the way you can get it out of them, by working backward and with each fact we ask, "Did he have headache? Did he vomit? Was he dizzy? Did he have a stiff neck?" You see, it is not the big things, but a number of small ones, that make the diagnosis. You cannot see them by examining the child; they are not evident.

We interpret the initial vomiting in the presence of a running ear with headache as the time at which the invasion went into the head. The day that he had the headache, the day that he vomited, that is the time that the meningeal inflammation began.

We interpret every convulsion—always provided the patient has a running ear or a discharge from his nose—we say, every convulsion shows there has been a sudden infarct of a septic process through the dura. A child does not have convulsions from his stomach. It is true if you give a child peanuts it may have a temperature of 104°, and may have a convulsion, but it is always supposing that the sick person has trouble with his ears or his nose. So we say that a convulsion is the

time at which the invasion went into the cerebral tissue.

An adult may have a chill. Children do not have chills. They get rather bluish-white. That is all that happens expressive of a sudden change of temperature. In the presence of a running ear, a chill in an adult or a "weak spell" in a child, during which it becomes white or blue, means with us a blood-stream infection. You may not be able to find the thrombus; that is, you may not be able to locate it at operation, and I do not mean to say that the patient will have a sinus thrombosis or a meningitis from a septic phlebitis of pial veins, but I feel sure that the chill or weak spell always comes from a blood-stream infection.

We interpret drowsiness in a child or an adult, associated with a slow pulse and with a papilledema, as pointing to a brain abscess as the cause of the meningitis, provided we can elicit that abscess symptoms appeared before meningeal symptoms; in which case, as the brain abscess is the cause of the meningitis, the first thing to do surgically is to cure the meningitis, although it is secondary to a brain abscess.

Continued drowsiness with a positive blood culture occurs with meningo-encephalitis. A child or an adult with a positive blood culture from sinus thrombosis is not drowsy. With an uncomplicated sinus thrombosis the patient is over-alert mentally. I learned that from Billie D. He had a temperature of 107°. I was terribly worried about Billie. I had operated upon him twice. I was fussing with his wound and Billie looked up at me and said, "Doctor, if you leave me alone, I will get well", and he was right. He had a sinus thrombosis. He was not drowsy. He had better instincts than I had. But a drowsiness with a positive blood culture is a different thing. Such patients have encephalitis. They do not tell you—"Leave me alone". When you lift them up by the neck and say to them—"How do you feel?" they will open their eyes and may answer—"I don't feel so good"—but then they go back to sleep. The drowsiness of meningo-encephalitis differs from the drowsiness of pressure.

A stiff neck means involvement of the pos-

terior fossa. The odd thing about the stiff neck of some types of meningitis is that it comes and goes. It occurs in the cases that you can cure if you recognize the meningitis early—that is, the cases of suppuration of the petrous apex before the meningitis has fully developed. When they have a fully developed meningitis with the cerebrospinal fluid full of bacteria, of course there is a stiff neck, but during the stage of meningeal irritation the stiff neck comes and goes.

We had a case on the service of one of the otologists at the Infirmary. He called me up in the afternoon and said—"I wish when you get through with your office you would look at a woman that I operated on. She has a high temperature." I said, "Has she a stiff neck?" "No, I tried it." So I said to one of my associates—"Stop on your way home and see that case of Dr. So-and-So's." About 6 p. m., my associate called me up and said—"The woman has a stiff neck." About 8 o'clock that night, I felt the woman's neck. The neck was not stiff although she still had a temperature of 104°. Here was one man, a competent man, who said she had no stiff neck. A second man, also competent, who said she had a stiff neck, and myself who had seen a large number of these cases, and I said she had no stiff neck. The next day there was no doubt that she had a marked stiff neck. How can you explain it? When meningitis is fully developed the neck is so stiff that no mistake can be made but a stiff neck comes and goes in the beginning of the process. So we have learned to try the neck every day—yes, several times a day, when we are suspecting meningitis. Pain in one of the branches of the fifth—any running ear, accompanied by pain in any branch of the fifth, I am afraid of. If the pain is behind the eye, I am sure that we are in for trouble unless we recognize it early and do the right thing surgically.

Hyperesthesia of the cornea is never complained of but when present it is of great diagnostic assistance. It must be sought for. We wrap a small piece of cotton and touch each cornea with the end. What does it mean if one cornea does not react as well as the other? It suggests a septic involvement around the fifth.

Indentation of the visual fields. We have a field taken every day. In one case of brain abscess we took 62 fields on 62 successive days. This is a tiresome task. Personally, if I had to take the field of a child every day, or even of a very intelligent adult, I would soon find some excuse to omit it on that day, for to take the fields properly consumes about 40 minutes; and a child may take much longer; but now and then (and this in the doubtful cases when the pain in the head or the pain behind the eye comes and goes) the condition of the fields will make the diagnosis. For if you have a hemianopic indentation (you don't have a hemianopsia such as depicted on the charts, but a little indentation to the right or a little indentation to the left, more on one side than on the other) and if day after day that occurs, one day more, the next day less—for like a stiff neck it comes and goes—but then suddenly both temporal sides go in; now if the patient has meningeal symptoms, we can feel sure that there is a localized involvement of the chiasmal cistern.

Hyperesthesia of the ear. We only learned the significance of this during the past year. Hyperesthesia of the ear in the presence of evidences of meningitis, we have come to recognize as meaning an osteomyelitis deep in the bone. We had a girl whom I operated on. She developed a high temperature and had great pain when I touched her ear. I thought she was going to have erysipelas. The next day she did not have erysipelas, but she had meningitis. Upon postmortem we discovered a septic process deep in the temporal bone that had been going on slowly for a long time and which had been lighted into activity by the operation.

Paralysis. When there occurs a sudden paralysis of the side opposite to the running ear in a case of meningitis most surgeons immediately begin to think of exploring the brain believing that there may be a brain abscess. But this is not the way that a brain abscess occurs. If your patient has a running ear, and suddenly becomes paralyzed on the opposite side from the ear, what has happened? The great vein that runs forward along the floor of the middle fossa and then

up through the fissure of Sylvius—the great anastomotic vein of Trolard—has been blocked. So we have learned that a sudden contralateral paralysis in the presence of meningitis does not mean brain abscess. It means thrombophlebitis of Trolard's vein.

In these cases if you pass a searcher into the brain you will take away any chance the patient may have for recovery. You must not explore into the cerebral substance itself in a case of meningitis because the slight injury from the searchers passing through the arachnoid into the brain substance starts an encephalitis.

We try the vestibular reactions in every case of suspected latent meningitis because we have found that, if you have a running ear and if in one ear there is no reaction to a cold caloric in the upright position but there is a reaction when you have the patient lie down and there is a good reaction in both positions in the opposite ear; this combination of caloric findings occurs in increased intracranial pressure. This occurs in brain abscess, from tumor, or any other space-filling lesion. On the other hand, in meningitis if you caloric one ear and he has no reaction in either the horizontal or the upright position; and you caloric the other ear and he has nothing; and now if you put him in a rotating chair and you turn him and he still has no reaction, this, we have learned, means he has an exudate across the base. Absence of all induced reactions occurs in one type of case; in localized meningitis from thrombosis of the jugular bulb. If you operate on them, a few will recover; if you do not operate on them, they all die from a sudden extension of the inflammation.

One more point, in suppuration of the frontal sinuses, if the patient is euphoric—if, like Billie D., he feels too fine—if in the presence of evidence of meningitis he feels too well in proportion to his temperature, this shows that the infection is over the frontal lobe. We have had a number of patients with this euphoria, they said they "felt fine" but they had a high temperature; and we have drained a large amount of fluid.

Sphenoid cases. When you analyze the history of cases of meningitis from chronic

sphenoidal suppuration you are apt to find 2 things: (1) that the patient had a pain in the top of his head for a long time before onset of the meningitis; and (2) that the meningitis was precipitated by a sore throat, an operation, or some other debilitating process.

A man had an infection of his prostate. He was operated on, following which he had an up-and-down temperature. Then he developed an external rectus paralysis, and they asked me to see him. There was nothing wrong with his ear, nothing in his nose, only an up-and-down temperature, and an external rectus paralysis. We went into the history. "Yes, every morning for a long time I had a pain there" (placing his hand on the top of his head). "I used to take a dose of salts and that made me better." I didn't have nerve enough to do anything about it. I thought that his pyemic temperature might come from his prostate. A few days later he had a fully developed meningitis. They did a postmortem, and found he had a sphenoid full of pus that was perfectly curable if we had operated on it while the infection was still limited.

So much in a general way for the symptoms of *localized meningitis*. Now as to the exact location of the meningitis; it depends on where the infection entered the dura. If the infection goes through to the posterior surface of the petrous pyramid, there is a collection of fluid in the lateral arm of the pontine cistern, in the prolongation of the internal auditory meatus, or in the saccus endolymphaticus. If it goes in through the tegmen, they have a collection of fluid in the subarachnoid space of the middle fossa. On the other hand, if the infection goes through the frontal sinus, they have a collection of fluid not in the subarachnoid space but in the subdural space. This for an anatomic reason. The arachnoid is firmly adherent to the dura over the temporal bone but is not firmly adherent to the frontal bone. Behind the frontal sinus there is a normal space that can be filled with fluid—the subdural space. Meningitis from frontal sinus suppuration is rare but it always begins in the subdural space.

There are certain other things that we have learned about the location of meningitis in relation to the exact site of the disease in the ear. If the infection follows caries of the cellular structure of the angle of the petrosal, the patient is apt to have a collection of fluid in the saccus endolymphaticus. They are favorable cases to operate on. In such a case if you perform a lumbar puncture you get cloudy fluid but it does not contain organisms; but when you open the saccus the fluid will be found to be filled with bacteria.

Again if a patient has a suppurative labyrinth, the infection passes into the prolongation that surrounds the auditory nerve; that is, in the vast majority of cases. The prolongation becomes filled with fluid, and now nature immediately tries to wall it off from the general arachnoid spaces by an area of adhesions in the internal auditory meatus. More than 40 years ago Politzer described how there was always a barrier at this point in all cases of meningitis from the labyrinth. Why it was forgotten for so long I do not know. This barrier is simply the effort of nature to wall-off the infection. Thus if you have a dead labyrinth, and a meningitis, you should open this prolongation. Whether you open it through the labyrinth itself, or open it from behind the labyrinth, is a matter of judgment.

Unusual varieties of meningitis. There is a peculiar variety of meningitis from another area of the temporal bone to which we have been paying a great deal of attention—the petrous apex. It has been my good fortune to do some work on these cases. I always dislike to talk about personal work. By bragging, one loses the fineness and dignity that naturally belongs to the physician. Whenever I say I did this or I did that I always think of a scene I once witnessed. A little boy was standing before a miniature bowling alley where a ball is shot by a spring. His father was a very successful business man—who had made a large fortune—and took himself very seriously. "Was he not a genius?—Look at his fortune!" The boy reacted to his father's attitude. He shot this ball—he threw all he had into it—and by accident

knocked down a number of pins—more than any previous player. It was too much—he drew himself up and said—“That is more than a man can do”. Whenever I say anything about my work, I have a vision of that boy and his father.

Petrous apex disease. Disease of the petrous apex is not the same as mastoid disease. A mastoid disease is an inflammation of pneumatic cells; these cells have developed after birth. Petrous apex infection is a true osteomyelitis. It is suppuration of the medullary substance of the blood-producing tissue of the apex which is present before birth. For the apex is similar to the growing-end of a long bone. Meningitis and its complicating encephalitis from inflammation of the petrous apex is a slow process. The meningitis develops very gradually because it accompanies a slowly advancing infection of the bone.

Osteomyelitis of the apex gives Gradenigo's syndrome—that is, sixth nerve paralysis with pain in a branch of the fifth nerve associated with a running ear. About 80% of these patients with Gradenigo's syndrome recover spontaneously but about 20% die of a meningitis of a very peculiar type. All these dangerous cases have pain behind the eye, with transient attacks of stiff neck, and slight rises of temperature. You know osteomyelitis gives a little temperature, not very much, and the patient is apt to sweat at night. The pain behind the eye is due to an inflammation of the dura from the infection pulling on the dura. I have named it the “significant pain behind the eye”.

In 1927 a girl came to the Infirmary. She had a mastoid and was operated on 3 times. After each operation she came back saying that she had a pain in her ear and in her head and in her eye. At last they asked me to see her. I did not discover very much. She had a little temperature and a slight stiffness of the neck. One day she had a fulminating meningitis, and we had an autopsy, and what did we find? We found an erosion through the superior surface of the petrous apex, another erosion into the posterior fossa, and a large cavity in the petrous apex which was full of granulation. I thought it was a tuber-

culous process and as such I showed the specimen to the New York Otological Society.

Up to 3 years ago all patients with apex suppuration died. The first case in the history of medicine to be successfully operated on with a diagnosis of abscess in the petrous apex occurred at the Newark Eye & Ear Infirmary in 1929. Since then a large number of patients have been operated on. For we have learned how to diagnose the cases that will end in meningitis and the cases that will recover spontaneously.

The postmortem in all cases revealed the typical basal cisternal and appositional meningitis with hemorrhagic encephalitis of the basal ganglia and of the ventricular ependyma, which I have come to regard as a terminal stage. This encephalitis is clinically manifested by a state of semi-torpor from which the patient can be aroused, associated with stiff neck, high temperature and vertical nystagmus but without the headache and restlessness of the usual type of suppurative meningitis.

From the operative standpoint, I would say that disease of the petrous apex when early diagnosed and properly operated on should not be much more dangerous to life than an operation on the mastoid, but if you wait until a meningitis has developed, you cannot save more than about 50% of the patients.

Having learned to differentiate clinically (1) *arachnoid space meningitis* from (2) *meningitis secondary to a phlebitis of meningeal veins*, I then noted 2 things: (1) That a large number of cases of meningitis secondary to pial phlebitis which had *pneumococci* in the fluid, at autopsy showed an infection of *sphenoidal mucous membrane*. The sphenoid cavity contained hemorrhages, mucus and a small amount of pus. I noted also that cases with (2) *streptococci* or *staphylococci* all had areas of *osteomyelitis* of a cartilaginous bone adjacent to the meninges. At times, the area of pus within the bone was very small but a local pus focus was present in all cases.

Meningitis apparently from suppuration in the ear but in which the primary focus of in-

fection is in an accessory nasal sinus. Many years ago I was struck by the frequency with which pus was present in one or more nasal sinuses in patients dying of meningitis.

A boy, years previously, had a bilateral sinus thrombosis, which was operated on and recovered. The left ear dried entirely but the right ear ran intermittently. Suddenly he complained of headache which lasted but for a minute. He had no fever; no chills; no vomiting; no pain in his ear. The following day he went to school but the second day when he came home he complained of headache in the frontal region. Two days later he again complained of severe headache. His temperature went to 102°. Then he rapidly became "dopey". There was a slight suspicion of rigidity of his neck. He had a peculiar gait. It was thought he had the grippe. That night his ear began to discharge and his temperature went up to 104°. A lumbar puncture showed 1000 cells, 50% of which were polys. X-ray picture showed infection of the nasal sinus of the left side. Recognizing that it was a combination of sinus trouble with otitis, we operated upon his mastoid and found only granulations. We had his accessory sinuses opened and in both sphenoids there was fluid which contained pneumococci type II. We then gave him pneumococcic serum and he made a rapid recovery.

The embolic nature of pneumococcic sphenoidal meningitis. Pneumococcic infection of the submucosa of the sphenoid causes showers of bacteria to be thrown into the blood vessels of the brain, the same as a lateral sinus thrombosis throws showers of bacteria into the general venous circulation. But pneumococci which develop in the pneumatizing sphenoid have a selective affinity for the blood vessels that are connected with the pneumatized temporal bone.

It is a similar process to the selective affinity that low-grade bacteria from the roots of the teeth have to attack the tissues where muscles, bone and cartilage are in apposition; with this difference, that an embolus of pneu-

mococci from the sphenoid is discharged into the circulation inside the head.

Precipitating causes of embolic meningitis, associated with otitis. The acute meningeal invasion is almost invariably precipitated by operative interference, or by a concomitant infection such as a tonsillitis. This is the explanation of why it is so dangerous to operate early in mucosis cases. The surgeon simply disseminates showers of bacteria into the brain tissue from the diseased blood vessels of the temporal bone, from which the phlebitis rapidly extends into the meninges.

Cases of pneumococcic meningitis without otitis. Embolic shower from the sphenoid-ethmoidal mucous membrane may be deposited in the brain substance itself without any embolic otitis; in these cases, the bacteria from the sphenoid also have a selective affinity for the vascular system of the cerebral substance itself. The areas which are attacked are the venous capillaries of the deep ventricular system, and the blood vessels of the choroid plexus. Invasion of the deep cerebral tissue is accompanied by signs of encephalitis with disturbance of the thermodynamic equilibrium of the fluids of the cerebral tissue. For now the mechanism contained within the choroid plexus and the ependyma of the ventricular system is upset, on this mechanism is dependent the proper nutrition as well as the discharge of catabolic products from the deep cerebral tissue.

Prophylactic treatment. If these contentions are true (and of the capillary venous origin of the pneumococci there is a little histologic evidence in the literature, and of the medullary substance origin of the streptococci cases in both the sphenoidal base and the petrous apex, I have abundant clinic and pathologic proof); then your responsibility dates not only during a suppurative otitis or a complicating meningitis but from the time of the invasion of the sphenoidal mucous membrane by a microorganism which has a tendency to develop meningitis.

Also, with the first symptoms of men-

ingitis, not only should the mastoid be ex-enterated and the basal cistern drained, but the sphenoid should be opened and active specific serum treatment instituted in all cases of type I and II for which we now have a specific serum.

After-treatment and conclusion. We have learned that every case of meningitis is a problem to consider on its own merits. If it goes into the meninges by pneumatic bone it is one problem. If it goes through medullary bone, it is another problem. You must treat each case by itself. After you have cured the localized meningitis, then you begin lumbar punctures, 3, 4 or 5 times a day, and you flood the patient with glucose, flood him with salt solution, but especially you give a transfusion of blood every day. If you will keep at it, it is surprising what a considerable proportion of patients you can get well.

DISCUSSION

Dr. George W. Mackenzie (Philadelphia): I have always enjoyed hearing Dr. Eagleton, as he always has something of value to give. For that reason I wanted to discuss his paper, with him here, in order to pay him a compliment, at least.

His percentage of recoveries is high, but no one has a right to question another's results or contentions. For instance, he says that he cures 32% of his patients with suppurative meningitis, and I would be inclined to believe him but, some of the rest of us do not get such good results; maybe due to faults in our technic.

I think his differentiation of cases, into those which promise to terminate favorably and those which do not, is excellent. In other words, I take it that he believes that cases of meningitis in which the blood culture is negative, are favorable for operation; while those in which the blood culture is positive are less promising, with or without operation.

He spoke about the circumscribing influence in certain forms. That was referred to by Sir William McEwen in 1893. Though the essayist did not mention McEwen by name, it occurs to me that he is familiar with McEwen's work. McEwen pointed out that quite a number of cases of circumscribed meningitis occur with but few symptoms, and it is due to this protective effect of what I would term—and McEwen did so term it—*perivascular lymphatics*; and we find these numerous in the arachnoid. Furthermore, the arachnoid is a very vascular coat, so we have in it a natural protective influence. In other words, when invasion occurs there, the rich supply of these vessels and the perivascular lymphatics, prompts a productive type of inflammation with what McEwen called a *salvage process*.

A STUDY OF THE NEGRO INFANT MORTALITY RATE AND WHAT THE WELL-BABY CLINICS ARE DOING TO LOWER IT

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The perusal of any "annual report" in which there are comparisons of the infant mortalities of the Negro and white races causes marked surprise because of the enormity of the Negro mortalities. Because the differences are so great, the question of causation immediately arises. The same difference appears in all of the mortality tables of the first year of life. The groups concerned are the neo-natal, which considers deaths per thousand babies under 1 month old; the deaths of those older than 1 month; and deaths which occur during the entire first year.

The infant mortality of Newark for the past 3 years is as follows:

1929	59.6	per thousand
1930	52.1	per thousand
1931	51.5	per thousand

In the neo-natal mortality we find that a greater percentage of babies die during the first month than during the rest of the year. We have quoted a comparison of Negro and white mortalities of Newark for the past 3 years.

	Under 1 month		
	For the city	White	Colored
1929	31.2	21.3	68.4
1930	27.9	24.8	52.7
1931	30	27.6	49.7

	Over 1 month but under 1 year	
	White	Colored
1929	23.1	70.3
1930	21.1	50
1931	18.6	45.8

	Under 1 year	
	White	Colored
1929	49.7	138.7
1930	45.9	102.7
1931	46.2	95.5

To further show the vast differences in mortalities, we shall cite figures from City

Wards (political divisions) where the colored population is fairly large and the percentage of births is noticeable.

	Infant mortality	% births in ward
Ward 15		
1929	122.7	highest in city 27.4
1930	46.	29.5
1931	61.8	27.8
Ward 3		
1929	108.1	57.8
1930	100.	63.9
1931	85.1	60.7
Ward 4		
1929	97.1	27.2
1930	98.9	28.6
1931	75.0	25.0

The exceedingly high infant mortality rates of the Negro force us to reason that there must be a cause; that they do not just happen of themselves.

In his recent work entitled "Population Problems" Thompson says: "As regards the basic causes of high infant mortality among the Negroes, they are the same as those in the population at large. Briefly, these factors are—poverty; employment of the mother away from home during pregnancy and immediately after the birth of the child; poor food; too frequent births; and all the conditions which make it difficult or impossible for a mother to give her baby good care. There are certainly no essential differences between the races in this respect. Poverty and all its accompanying evils, together with ignorance, will account for a high infant mortality among any people at any time, and these seem to be the basic conditions producing the high infant mortality rates among the Negroes today."

In the annual report for 1929, of the Division of Child Hygiene, Board of Health, Newark, we find the following:

"It is interesting to point out that some wards with a high percentage of colored births present infant mortalities lower than other wards with a much lower percentage of colored births. We consider this fact evidence that the problem of infant mortality is not peculiar to race, or color, or nationality, but is closely bound up with ignorance, housing, economic and social conditions."

We think that at this time it is well to pause and consider the foregoing assertions, because we may thereby be able to obtain a better conception of the situation. Ignorance, we know, is prevalent, and in large communities is due mainly to a changing population. This population is essentially agricultural and it is attempting to approximate the foreign urban conditions to their previous knowledge of eating, clothing and housing. The term ignor-

ance must be qualified, for it must be used to mean lack of knowledge of a new environment.

Because of the lack of figures of infant mortalities, it is necessary to proceed by analogy. Dublin states that in the pre-Civil-War period the Negroes lived under conditions similar to the poor whites and that their conditions were about the same. Later, in some southern cities, like Charleston, Savannah and New Orleans, the death rates of the races were similar. It is only when we go to the outlying rural districts of the south, or where we move northward, that the Negro mortalities become so very high. When we observe figures of present-day infant mortalities and not their constant reduction, we feel that ignorance resulting from the presence of new conditions due to changed environs is passing. The Negro has only during the past few years been considered as an individual group. It had never been thought that the old story of a weakest link also obtained in this instance.

Despite this ignorance, the Negro has survived and multiplied. He has done so because he is of a hardy race and is a well organized individual with a marked capacity for long life. In his chapter on Life, Death and the Negro, Dublin, after referring to a lower mortality among colored children with reference to tuberculosis, makes the following statement:

"There is every reason to believe, however, that the improvement of the last decades will continue. The colored people have, as a race, good physiques, and they are learning all the time to take better care of themselves in relation to their changing environment. * * * Heavy infant and child mortality rates have always been the rule in this country among the Negroes. But in recent years they have made marked gains in overcoming this handicap."

The question of housing is another acute problem which must be considered. It has probably been investigated and discussed more than any other phase which has been a result of the influx of such unusual numbers of Negroes from the south. The basic factor is the inability of a Negro with money to buy in a good residential district. We grant that there are segregated sections of the Jew, of the Italian and of the Chinese, but none of these

groups ever seem to arouse the tense and complex situations which we have observed when a Negro desires a decent home with modern improvements in a decent part of a city.

Because of the seeming innate prejudice, the Negro migrant has been forced to pay increased rents for houses which have been abandoned by members of every other nationality. He has been forced, although able to pay, to live in run-down segregated areas. These recent migrations have caused antagonisms, which Burgess explains by the following assertion:

"Every residential community offers resistance to the intrusion of a new group of imputed inferior status, whether on the basis of race, economic standing or cultural difference."

Louise Kennedy in her book, "The Negro Peasant Turns Cityward", notes that there was no distinction as to the type of person trying to buy. So much for the housing.

From what has been said one is able to appreciate that housing is with Negroes, a very serious problem. As a sequel to poor housing conditions, we have the problem of renters, with its consequent over-crowding of families, lack of privacy, and the breaking down of the family morale. The existence of this last situation may be the beginning of what might be designated as *unmoral* and social lapses.

Involved with housing, renting and their concomitant aspects, is the great question of economics among Negroes. It is a factor which must be looked at in an unbiased and understanding manner. To our mind a quotation from a study by Caliver is sufficient to cover this point.

"It should be emphasized at the outset although this fact is rather generally known, that the economic level of the Negro group, as a whole, is low and quite frequently the occupational status does not accurately portray the real economic situation; for example, most of those who are classed as business men belong to the small retail group, and in many cases they are finding it extremely difficult to do as well economically as many ordinary workers. The inadequacy of the compensation of those who belong to the professional group is proverbial; while those in the skilled labor and clerical classes can often barely reach the minimum wage of whites who belong to the same occupational group. For these reasons it should not be assumed that there is the same economic status for Negroes and whites in any given occupational group."

To counteract the influences and conditions of which we have spoken, various social and welfare agencies have entered the field in one way or another. Our particular work has been, to my mind, educational. In the recent report of the "New Jersey Conference on Child Health and Protection", under Medical Care for Children, we find the following:

"New Jersey has realized the importance of this and has inaugurated Baby-Keep-Well Stations throughout the state to which thousands of mothers bring their babies to be weighed and examined, and to receive advice on infant care and feeding. By keeping in touch with these stations the physicians of New Jersey have a wonderful opportunity to familiarize themselves with normal growth and development. * * * Many aspects of the Negro health problem apply in varying degrees to the state of New Jersey. The opportunity for adequate care of the Negro child in his home is exceedingly limited. This is not only on account of overcrowded and miserable housing, but on account of the economic condition of Negro families, which makes it practically impossible for a physician to employ modern methods of diagnosis and treatment."

So, we, who have spent some time in the Well-Baby Clinics, feel that we can do a share of worth-while work toward the decrease of infant mortality by educating the young colored mother. As has already been stated, the average Negro comes into this world with an almost insurmountable handicap. The result of the hardships of the pregnant mother is reflected in the early mortality rate among Negro babies.

It is conceded by all authorities of today that the pre-natal, intra-natal and post-natal care are very necessary in the scheme of prevention to lower infant mortality rates. It is here, in the Well-Baby Clinics, where the physician can be present and teach young mothers. The needed approach to get the mothers to clinics is furnished by the visits of the nurses of the Division of Child Hygiene to the home. Here, the nurses are able to instruct the mother in the making of formulas and the preparation of the infant's food. She can demonstrate the modern methods of washing and dressing the baby, and she can also interest the mother to such a degree that she will bring her baby to the Well-Baby Clinic at regular intervals for observation and advice. It is by this means that we hope to give the baby the good beginning

which is necessary. Although maternal nursing seems to be out of date, we attempt to get the mother to nurse her baby at regular intervals if for no other reason than the immunity furnished. We feel that breast feeding gives a better and more rugged body with which to carry on.

Lastly, there is certain specific advice which may seem non-essential to some, but which we think is needed and therefore we give it. We impress upon the mother the necessity of sleep and quiet for the baby. We tell her that the baby is not a play-thing and must not be handled and kissed by everyone who has such a desire. The rights of the baby must be respected. Babies should not sleep with their parents nor should the carriage be converted into a bed. At the clinics we see the babies every 2 weeks and feel that we are progressing when the baby gains 4 oz. every week and weighs 20 lb. at the end of 1 year. Rickets, we try to prevent by the proper advice as to feeding and care, and by medication. From what has been written, you may be able to obtain a faint idea of our methods of attempting to help in lowering Negro infant mortality. We feel that it is only by the constant hammering of fundamentals that we can expect to get anywhere.

DEATHS IN THE FIRST MONTH OF LIFE

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The subject of still-births and neo-natal deaths will receive increasing attention. I believe this will be due to several factors: (1) the marked reduction in infant mortality has occurred after the first month of life with the result that the attention of those who are desirous of further reducing infant mortality will be directed increasingly to this early period; (2) the continuing lowered birth rate emphasizes the importance of each birth, with the result that an increasing effort must be made to eliminate every preventable early death.

Now, the study of this subject is surrounded with great difficulties. It is not easy to determine the actual cause of still-births or of deaths among new-born infants. Clinical diagnoses are grossly inaccurate. Even anatomic diagnoses based on autopsies fail to give the real cause of death, either because the morbid anatomy does not adequately explain the death or because the lesions may merely be the result of other conditions, such as difficult labor, instrumental delivery, syphilis or toxemia. So, I think, in approaching this subject, we must first emphasize that whatever observations or deductions one may make must be considered tentative and accepted with a great deal of reservation.

I think the best way to approach the subject is to submit, first, statistical data which will enable us to determine whether there has been any improvement in the neo-natal and still-birth rates; next, whether there is an important difference in various localities; and then, to consider some important causes of the deaths.

We shall be impressed at once with the fact that although there has been a very marked and continuous reduction in the infant mortality rate in the past generation, there has been very little, if any, apparent reduction in the still-birth or neo-natal rate. I use the word—*apparent*—on account of the possibility that with the more complete reporting of still-births and deaths in the first days of life, it is possible that there may have been some reduction which is not observable in the reported statistics. The still-birth rate has been about 40 per 1000 deliveries for a very long period of time and the neo-natal death rate has been around 35. I would immediately point out that one should be careful in considering either the still-birth rate or the deaths in the first day of life, or even the first weeks of life, separately. It will frequently be noticed that in a year where there is an apparent drop in the neo-natal rate, there is concurrently a rise in the still-birth rate and, conversely, where there is a drop in the still-birth rate, there will often be found a rise in the neo-natal rate. This is not only interesting but, I think, important. Of course, it shows the danger of considering subjects by

the statistical method without having all related facts together, but it also directs our attention to the thought that probably the same factors which make for still-births contribute in making for deaths in the first day of life. Parenthetically, I might add that the maternal mortality which is connected with the obstetric period probably is affected by the same factors.

When we consider the state of New Jersey, we find that in the first part of the decade the deaths under 1 year of age exceeded the combined still-births and deaths under 1 month, but since that time these combined deaths have always exceeded the deaths under 1 year. The second interesting point is that there has been a greater tendency toward a reduction of the neo-natal rate and still-birth rate during the past 3 years than in any period before. Whether this has any relationship to the present economic situation it is, of course, difficult to determine, but one might point out that during the first 3 months of this year there has been a reduction of practically 45% in the infant mortality rate, and last year presented one of the lowest rates reported. Now, while facts similar to this will be found in the various counties and cities of New Jersey, it will be noticed that there is, after all, considerable variation.

An analysis of the still-births and neo-natal deaths in the various counties and cities shows first, a very slight reduction in neo-natal deaths or still-births except in the last 3 years; second, the reduction in neo-natal deaths or still-births in separate years is found to be more apparent than real, as with the reduction in still-births there is an increase in neo-natal deaths, or with the reduction in neo-natal deaths there is found an increase in still-births.

There are sufficient differences in both still-births and neo-natal deaths in various counties and cities to justify a more detailed examination of the practices or facts peculiar to these counties or cities. For instance, there will be found in Elizabeth the lowest still-birth and neo-natal death rate for the entire period, while in Trenton will be found the highest. Similarly, Essex County throughout the period shows lower rates than Hudson

County. While the rural counties show greater variations in single years, on account of the smaller numbers involved, it would seem on the whole that their combined still-birth and neo-natal deaths are higher than the more congested urban counties. It has occurred to me that if one could discover what are the particular practices in the cities and counties which show marked contrasts, one might come closer to an understanding of some of the causes of these deaths.

We will attempt to refer only partially to some of these important causes. In a very thorough piece of work performed in England, it was stated that asphyxia is probably the cause of 68% of deaths in the first month of life. To accept this classification, one must understand that they have included in this group premature births, pneumonia, intracranial hemorrhage, visceral hemorrhage, and syphilis. The classification was made as the result of a careful study of all the facts which might have influenced the death. The mere fact that a still-birth or an infant dying in the first day was found to have syphilis was not considered sufficient reason to give that as the cause of death, since, of course, it is possible for the real cause of death to be instrumental delivery with birth injury. It is also important to realize that the mere fact of a birth injury being found at autopsy does not prove, from a practical standpoint, that this is the real cause of death. Asphyxia could be the cause of hemorrhage just as hemorrhage can be the cause of asphyxia. So, it is pointed out that the finding of pneumonia at autopsy does not prove that the real cause of death was pneumonia. It has been found that toxemias produce hemorrhages into the lungs, which often terminate in pneumonic processes. We have the difficult situation, for instance, in a breech delivery where, through the desire to avoid prolonged asphyxia, we hasten delivery with either a resultant hemorrhage or fractured spine. Gross bleeding, intracranial hemorrhage, abdominal hemorrhage, and trauma may be the result of toxemia of pregnancy. In neo-natal asphyxia, 2 facts are important; first, a moderate increase of CO_2 will stimulate the respiratory center—an excess paralyze it; second, a gradual arrest of

cerebral circulation will so exhaust the respiratory system that marked dyspnea is produced, as in prolonged pressure. Disease of the placenta, retroplacental hemorrhage, internal contractions will actively contribute to this condition of asphyxia.

In a careful analysis of 800 autopsies, only in 22 was the cause of death assigned to gross developmental defects. This does not mean that there were not developmental defects found in a larger number, but that only in 3% of the cases were they considered of such a nature as to be the real cause of death. Of the 800 autopsies at the Glasgow Maternity, asphyxia neonatorum associated with other conditions in connection with delivery was considered the cause of death in 68%; various types of infection, 30%. In the group in which the real cause of death was considered asphyxia and associated conditions, it was actually found that intracranial hemorrhages were present in 146 cases, tearing of tentorium and other dural structures 121, and visceral hemorrhages 62.

It is quite generally considered that syphilis is a very important factor in still-births and in the deaths in the first days of life. A report by Dr. John Norman Cruickshank, of the Medical Research Council of Great Britain, on cases he examined at the Glasgow Royal Maternity and Women's Hospital, throws considerable doubt on the generally accepted views.

The presence of a positive Wassermann reaction in the mother cannot be accepted as an incidence of syphilis in the infant or fetus. Of 181 cases followed for 30 months, it was found that in 41 cases which had positive Wassermann reactions at birth there was a negative reaction upon reexamination at periods of 3 weeks to 20 months. In a series of 51 cases with strong positive Wassermann reactions in the mother or child or both at delivery, only 8% showed a positive reaction later. It was his opinion that a positive Wassermann reaction in the infant at birth may be due to the transference to the fetal blood of reacting substances and that estimates of congenital syphilis based on positive Wassermann reactions are excessive. It was his

opinion that the clinical estimates of 1% are probably correct.

As a result of very careful autopsy examinations, which have been carried on by various observers since 1915, the old idea that most miscarriages and abortions were associated with syphilis is hardly tenable. These studies indicate, however, a very close relationship between syphilis and premature births. Of 1000 cases examined, the abortion rate among the syphilitic mothers was 6.1, while among non-syphilitic mothers it was 15. The still-birth rate was 18 for syphilitic mothers and 15.1 for non-syphilitic mothers, but the premature rate was 32.5 for syphilitic mothers and 19.8 for non-syphilitic mothers.

It appears also that syphilis had very little relationship to ante-partum or post-partum hemorrhages, as the percentage of hemorrhages, both ante-partum and post-partum was higher in the group with negative than in the group with positive Wassermann reaction.

I think we have been under the impression that the deaths in the first days and weeks of life, also, might be related to syphilis. This, likewise, is not borne out by the careful autopsies which were made in this Glasgow hospital group. Of 3500 Wassermann tests, positive reactions were found in 9% of the mothers and 4% of the infants. During the first 2 weeks, the death rate of infants of syphilitic mothers was 11.7 and of non-syphilitic mothers 9.5, a difference so slight that one can hardly ascribe the deaths to syphilis.

It is known that the neo-natal mortality is approximately twice as high among the colored as among the whites. This factor must be considered in a careful analysis of the statistics. It would be desirable also to consider the percentage of other racial groups in the population, as it has been found that the infant mortality rates and neo-natal rates are lower among Italian and Jewish mothers than among other portions of the population.

I wish to mention some other facts which may offer some explanation or have some relationship, at least, to the reduction in neo-natal deaths and still-births in the past 3 years. An analysis of the births in Newark for the past 10 years has shown that while there has

been a very definite and progressive reduction in the birth rate, it has resulted almost entirely from a reduction in the number of multipara births; or, to put it a little differently, we find that the percentage of first births has definitely increased during the past 3 years. The question then arises whether there is more danger connected with the first than with later births. The impression, I think, has always been that there was greater danger attached to the first birth, but, in the face of these facts, I think the subject requires reconsideration.

In a report made by the Children's Bureau from an analysis of live births in 8 selected cities, it appears that the still-birth rates, and neo-natal mortality rates, are higher among the first-born than among the second-to-fourth-born, but that the rates again become higher for later births. I do not think that we can accept this as applying to the present day. It is easily conceivable that various conditions and circumstances have changed, which would produce a different rate for the first-born. For instance, it is pointed out also in this report that the neo-natal mortality is higher among infants born to mothers under 20 years of age. While in the study an attempt was made to segregate these factors, it is possible that if a larger percentage of first-born is born to women in the age group around 25, the mortality may become lower. The general opinion has been, however, that there is greater risk, both for mothers and the new-born, in the first-born.

In closing, I think it is well to refer to the summary of a study of 1673 still-births and neo-natal deaths investigated clinically and anatomically by Eardley Holland and Janet S. Lane Clayton, in a London hospital. They stated as a result of their study and experiences: (1) Maternal morbidity is closely related to maternal and fetal mortality. (2) Frequency of intracranial lesions is high; tentorial tears were noted in $\frac{1}{4}$ of the neo-natal deaths; some found in spontaneous breech, but the majority were associated with the use of forceps or the practice of podalic version. (3) Efforts should be directed to the reduction of the need for obstetric interference.

(4) More modern methods in the prevention and care of asphyxia will effect a reduction in fetal and neo-natal mortality.

COLLAPSE THERAPY IN PULMONARY TUBERCULOSIS

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and

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Our purpose in this paper is to present the society with a general idea of the progress made in the treatment of pulmonary tuberculosis during the last 2 decades, and particularly during the past 7 years. Detweiler, 60 years ago, advised the conservation of vital energy by rest in bed. The treatment of tuberculosis then entered upon an entirely new course. Every physician now living who has treated a patient with pulmonary tuberculosis has had the idea of rest as the predominant feature. We are in a new era. Progress is being made. There is today something in the line of cure to offer for what was 20, or even 10, years ago an apparently hopeless condition. We are not giving up rest but, on the contrary, we are making *rest* apply not only to the whole body but particularly to the diseased portion thereof. Artificial pneumothorax and the other forms of surgical collapse are really accomplishing most gratifying results. It was amazing, at the recent meeting of the American Society for Thoracic Surgery, to hear about the proportion of patients under surgical collapse in various institutions. In the Municipal Sanatorium of Detroit, where there are more than 700 pulmonary tuberculosis patients, 77.7% of them were, on March 17, receiving, or had received, pneumothorax or some surgical treatment to produce collapse. In the Michigan State Hospital, on the same date, 82.3% of all patients in the institution were receiving or had received

some form of compression therapy. At Glen Gardner approximately 50% of all adult patients are receiving collapse therapy of one type or another.

Let me digress here to emphasize the fact that from the public health point of view, as

dinary "rest-dietetic treatment" will improve the general condition but exerts a slow as well as uncertain effect upon the actual lesion, so that the sputum remains positive with frequent progression of the disease. It has been our experience, at the State Hospital, that

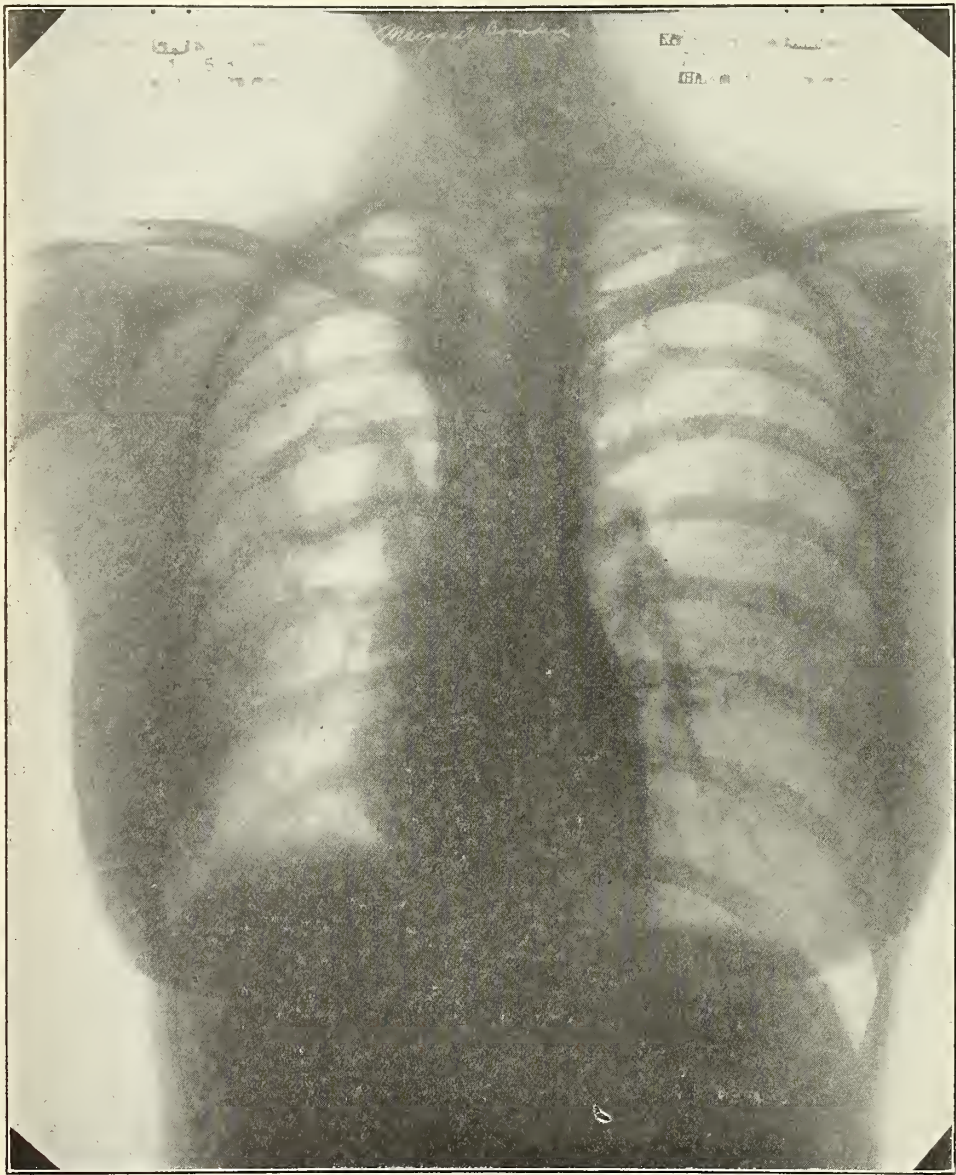


Plate No. 1, Case No. 10530, M. B. Patient a female, 30 years of age; massive right lesion with 2 large cavities. 6 oz. purulent expectoration daily; many bacilli, fever, toxemia; patient in bed.

well as from the economic, collapse therapy in tuberculosis has interesting phases. The majority of patients admitted to the sanatoriums have a positive sputum, beginning cavitation and toxemia with fever. The or-

60% of those who receive collapse therapy will become bacillus-free soon after the compression is established. Absence of bacilli from the sputum renders the patient non-infective to others—giving the work an im-

portant health aspect—and also encourages healing of his own lesion.

The Boards of Managers of Sanatoriums should realize and anticipate the need for collapse therapy in well over 50% of all newly admitted patients.

in these days of financial stress. If patients could report for pneumothorax refills at stations throughout the state, it would further shorten their stay in the sanatorium. Many patients continue in the institution because they have no nearby place to receive refills.

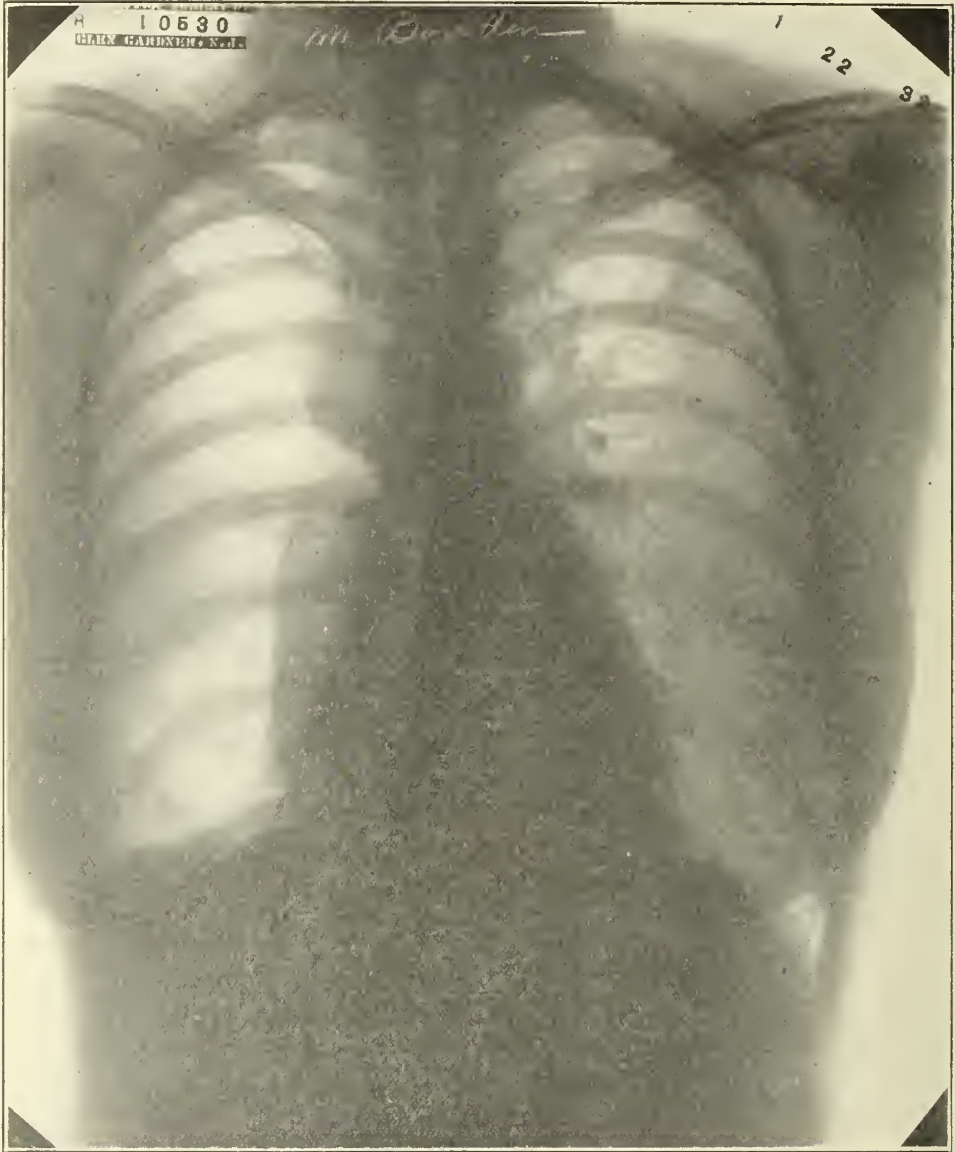


Plate No. 2, Case No. 10530, M. B. Eighteen months after right side pneumothorax. Note 90% compression, diaphragm slightly depressed. Left lung unaffected. No cough or expectoration, absence of toxemia. Patient gained 51 lb. Two years later no recurrence.

Aside from the benefit which patients derive from this form of treatment, their sanatorium residence is shortened; allowing an increased capacity for a given number of beds, which is a matter of prime importance

One of our patients comes from a place 100 miles away every 2 weeks, for the treatment.

Since the use of compression therapy renders so many patients free from bacilli in the sputum and, consequently, less infectious to

others, it is an important step toward eventual control of this disease.

The ideal form of treatment for an early unilateral pulmonary tuberculosis is, of course, pneumothorax. If all of our patients were of that type and all diseased lungs were capable

the average run of infected lungs cannot be satisfactorily collapsed by artificial pneumothorax, because of adhesions between the parietal and visceral layers of pleura. It is this group of patients we most frequently select for operation, and for which one of the

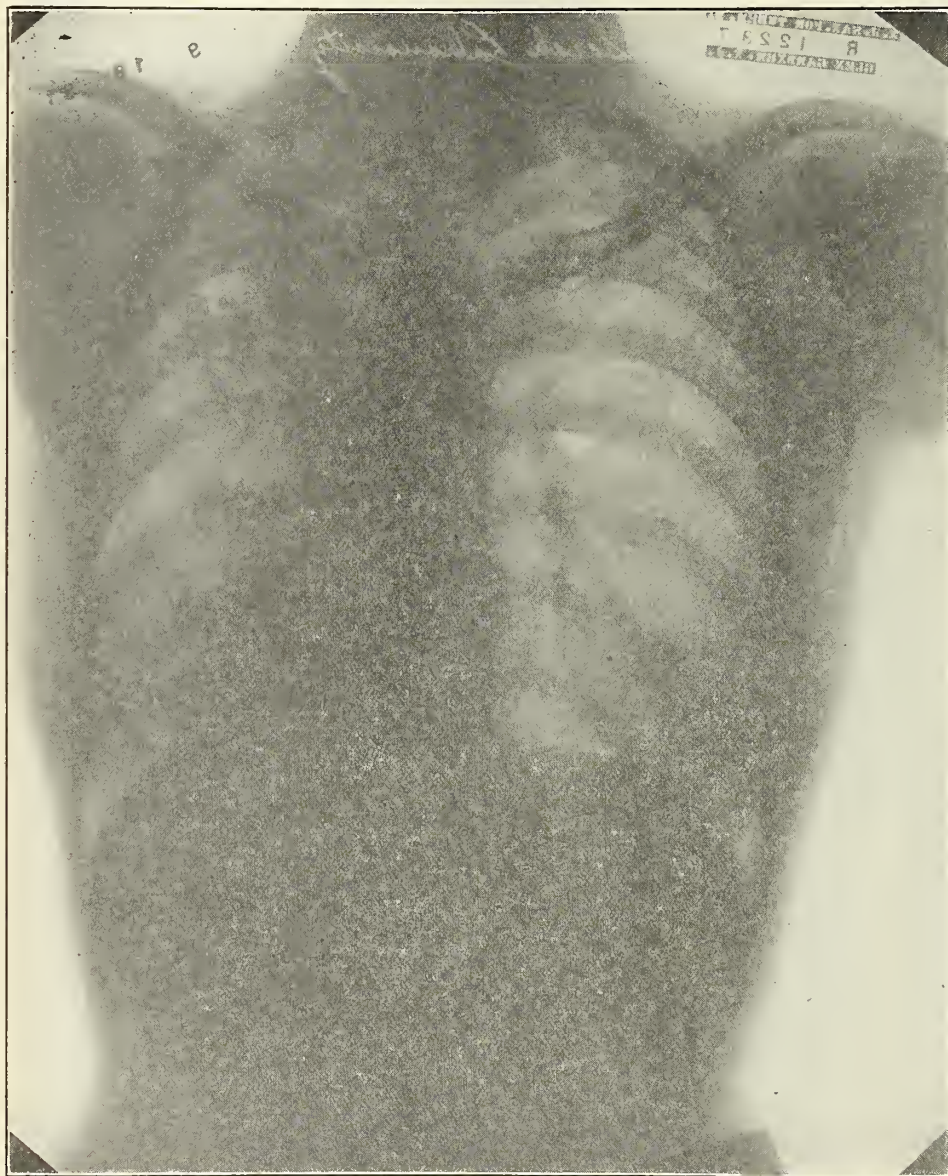


Plate No. 1, Case No. 12237, S. L. Female, with massive entire left lung lesion involved, with cavity below clavicle and with infiltration throughout. Small lesion upper right. Patient bedridden, toxic, positive sputum; prognosis bad.

of being collapsed by pneumothorax, there would be a small mortality rate for the disease. The condition is, however, often bilateral when the disease is first suspected and discovered. In addition, more than 50% of

following procedures is available: (1) Pneumothorax; (2) temporary or permanent interruption of the phrenic nerve; (3) extrapleural thoracoplasty; (4) internal pneumolysis; (5) external pneumolysis or apico-

lysis; (6) multiple intercostal neurectomy; (7) oleothorax.

Patients who develop tuberculosis of the lungs are not necessarily given a trial treatment of bed-rest alone, if we feel that other measures will hasten recovery, limit spread of

healing is retarded. The focus is in direct communication with the bronchus, so that there is no barrier to prevent spread of the bacilli to the contralateral healthy lung, or a good portion in the same lung. In addition, the pumping of the lung is forcing the toxins

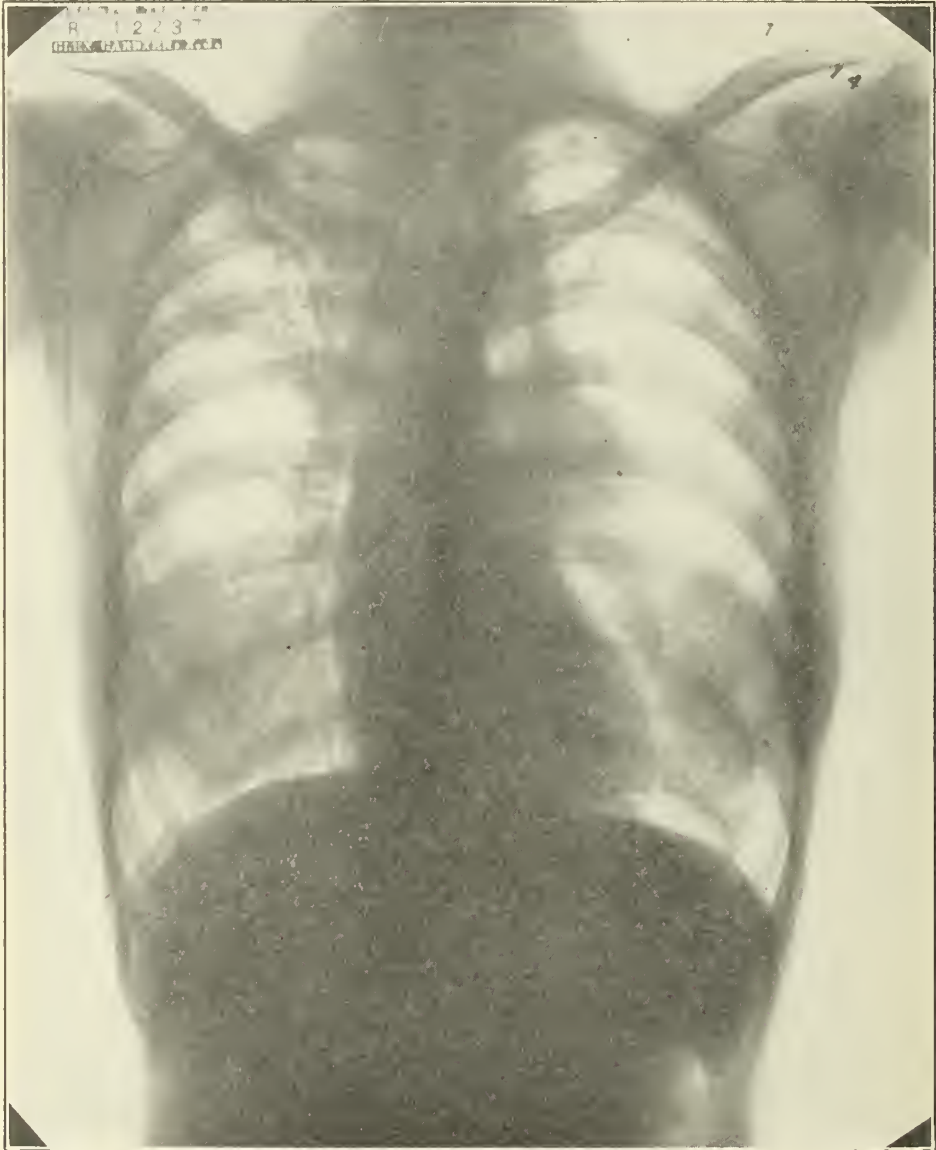


Plate No. 2, Case No. 12237, S. L. Three months later. 80% compression on left side; cavity still evident but smaller; little sputum. Patient much improved but increased lesion in right upper with new cavity.

the disease, and have at the same time no harmful effect on the patient. It is apparent to everyone that a diseased lung, expanding and contracting 15 times a minute, is being continually irritated by the motion, so that

from the focus, by way of the lymph stream, through the whole system; causing fever, depression, loss of appetite and myocardial strain. This toxemia lowers the patient's vitality and resistance at a time when he needs

them most. By collapsing the diseased portion, there is instituted: rest, for healing; a barrier against direct distribution of the bacilli; and, a considerable amelioration of the toxemia.

attributed entirely to the surgical measures added to the treatment during that period. With the indulgence of those who are familiar with these operative procedures, I would like to give a brief explanation of each.

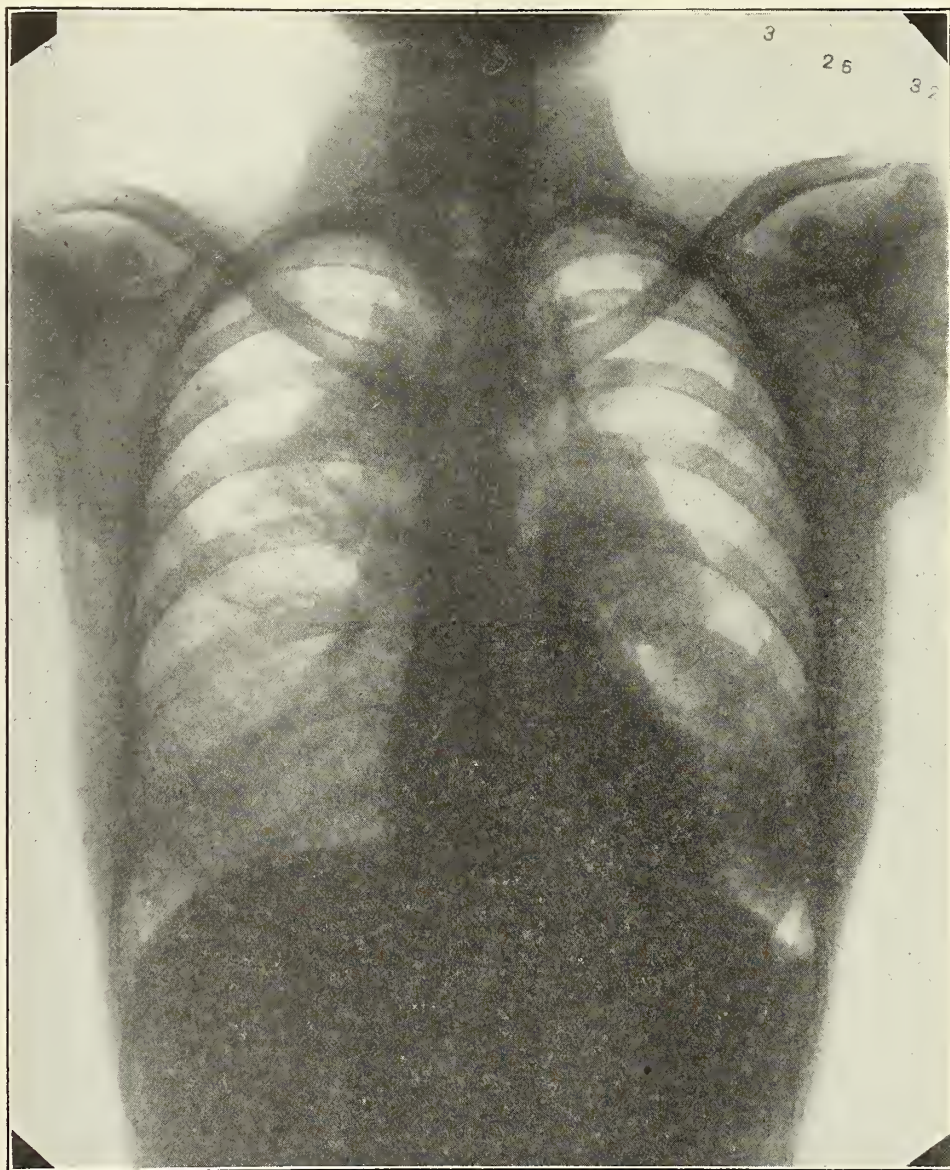


Plate No. 3, Case No. 12237, S. L. Two months later. Artificial pneumothorax begun on right side also. Note air in each pleural space. Both right and left cavity disappeared. Patient much improved; no cough or expectoration, little toxemia; gained from 107 to 158 lb. Present condition maintained.

In 1927, before surgical collapse was instituted, the death rate at the Herman Kiefer Hospital, in Detroit, was 25% of all patients admitted. Last year, the death rate was 10% of the admissions; an improvement which is

Phrenic interruption can be either temporary or permanent. If we have a patient for whom the value is speculative, or on whom, for any reason, we do not want to paralyze the hemidiaphragm permanently, we crush

the main branch of the phrenic and cut the accessory branch, if present. Function is then restored in about 4 months. If however, after the diaphragm is temporarily paralyzed, benefit is being derived therefrom, we proceed with complete interruption of the nerve; done

done by one unfamiliar with neighboring structures, it is very dangerous because of proximity of the subclavian artery and vein, the brachial plexus, the thoracic duct, the internal jugular vein, vagus nerve and thyroid axis.

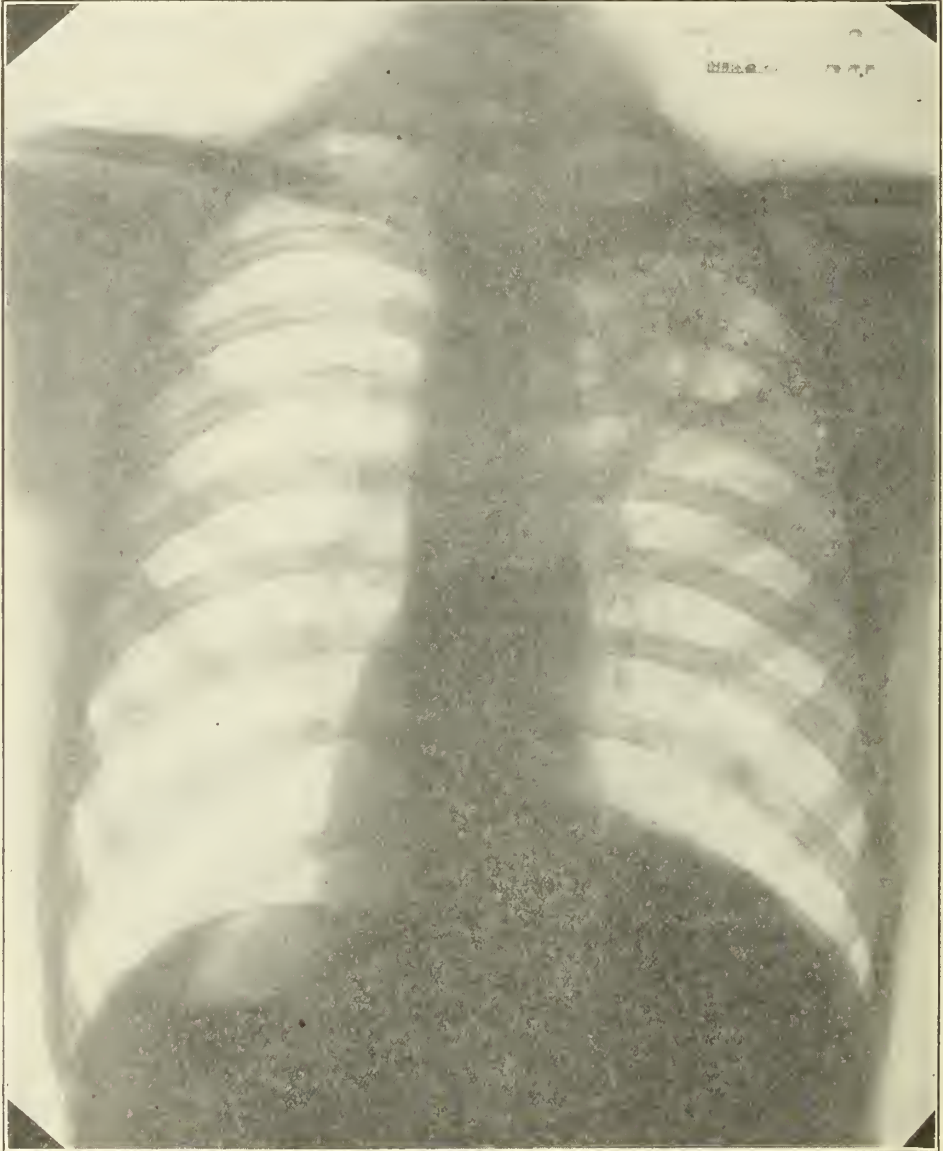


Plate No. 1, Case No. 16311, E. D. Male, 28 years of age, ill 3 years; admitted with massive right lesion, with an apical cavity, markedly toxic, positive sputum, profuse hemoptyses; contralateral lung, little involved.

by sectioning it over the anterior scalenus muscle in the neck and pulling it out by winding it around a forceps. The procedure has practically no serious complications in the hands of those who do it frequently, but when

Interruption of the phrenic nerve causes a paralysis of the corresponding hemidiaphragm which, in turn, causes a 30% compression of the lung. In addition, it has the important rôle of relaxing the lung in the vertical

axis, from which benefit is so often derived.

Phrenicectomy is used for: (1) Unilateral early tuberculosis; (2) cavitation whether at the apex or base; (3) to test the adequacy of the good lung before thoracoplasty; (4) to aid in pneumothorax treatment when

at times for tachycardia in connection with pleuropericardial adhesions, and persistent hic-cough.

Extrapleural thoracoplasty consists in removal of large sections of the ribs along the spinal column, so that the chest caves in, com-

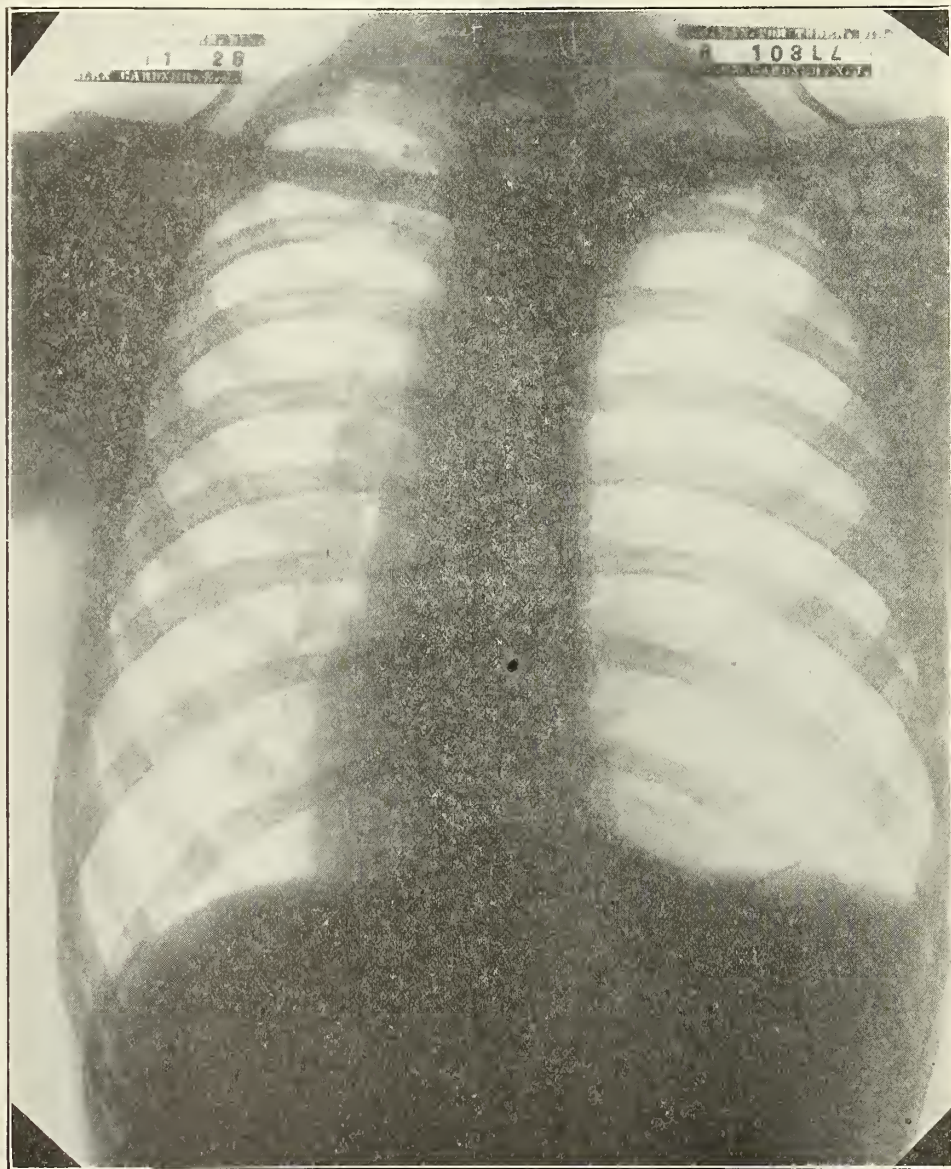


Plate No. 2, Case No. 10311, E. D. Three months later, practically 100% compression attained by artificial pneumothorax; fixed mediastinum; left lung unaffected.

adhesions are preventing suitable collapse; (5) to stop hemorrhage; (6) to improve the patient's general condition so that he will be able to stand a thoracoplasty. Incidentally, in non-tuberculous patients, it is used for lower lobe bronchiectasis, chronic empyema.

pressing the underlying lung. This is the real compression operation for tuberculosis where there is a massive unilateral lesion in a lung, which cannot be compressed by pneumothorax. The operation, unlike Shéde's, is done extrapleurally in healthy tissues. It is always

done in at least 2 stages, frequently in 3, because of shock to the patient incurred by removing the ribs, and shifting the mediastinum. Sections of the upper 11 ribs, varying from 2-6 in., are made. It is important to cut the ribs flush with the transverse processes.

ly no chance. Upon first thought, it would seem that the operation is very disfiguring but such is not the case. When the patient is clothed it is impossible to tell, by sight alone, on which side the operation was performed; the reason being that the clavicle re-

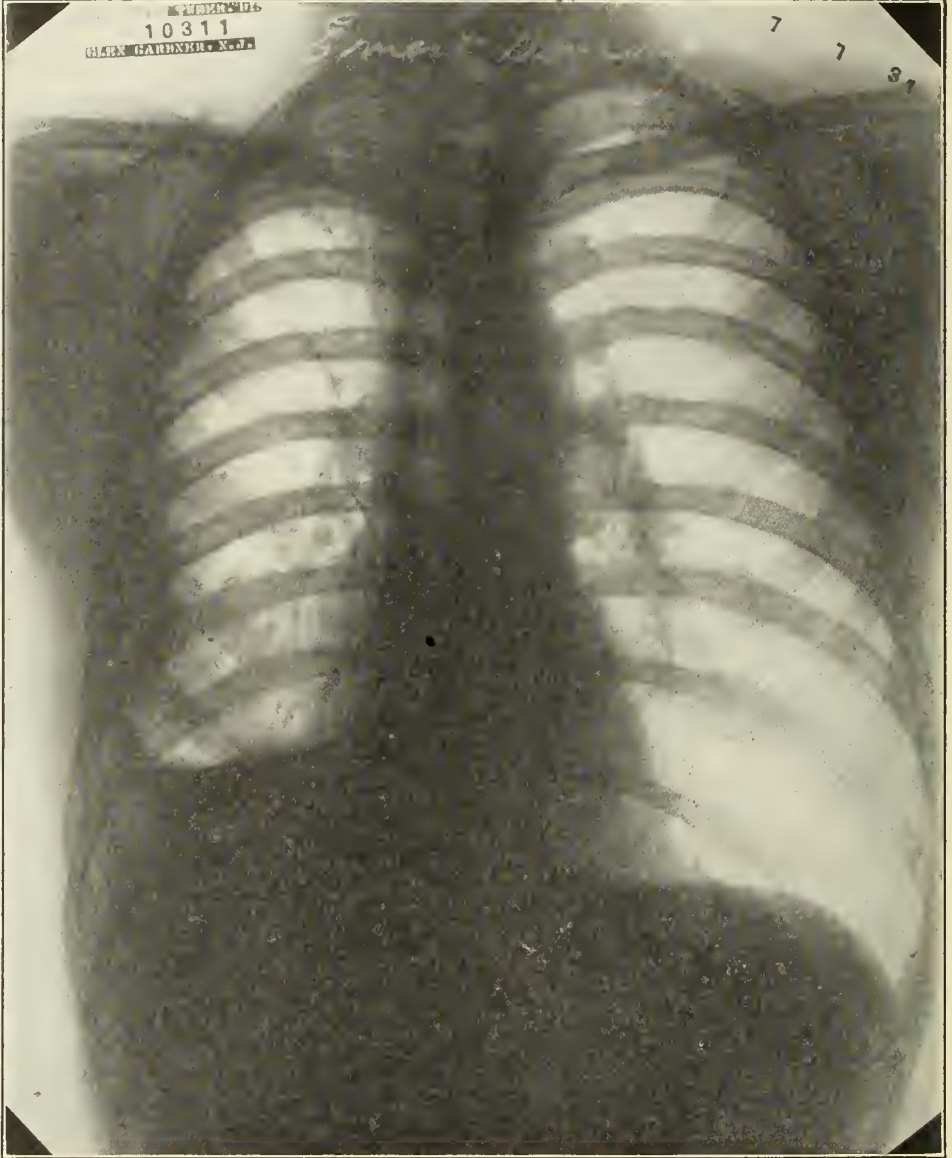


Plate No. 3, Case No. 10311, E. D. Three years later. Compression discontinued. Affected lung allowed to expand. Absence of abnormal physical signs, cough, expectoration and toxemia. Patient at present time well.

Of those chosen for thoracoplasty, 40% would die if it were not for intervention, whereas the mortality rate of the operation is only about 10%; therefore it benefits 30% of those who, before operation, had apparent-

ly no chance. It retains its full length and usual position, suspending the folds of the axilla.

Extrapleural thoracoplasty is indicated in those moderately or far advanced chronic cases in which the disease is confined to one

lung, where bed-rest and pneumothorax have failed, and where the patient shows moderate resistance to the disease. Hemoptysis, cavitation or empyema, whether present or absent, are not deciding factors. The decision,

before, 50% of the cases in which pneumothorax is attempted will not obtain a satisfactory collapse. Wherever lung tissue is diseased its presence is manifested by an inflammation of the overlying pleura, when it

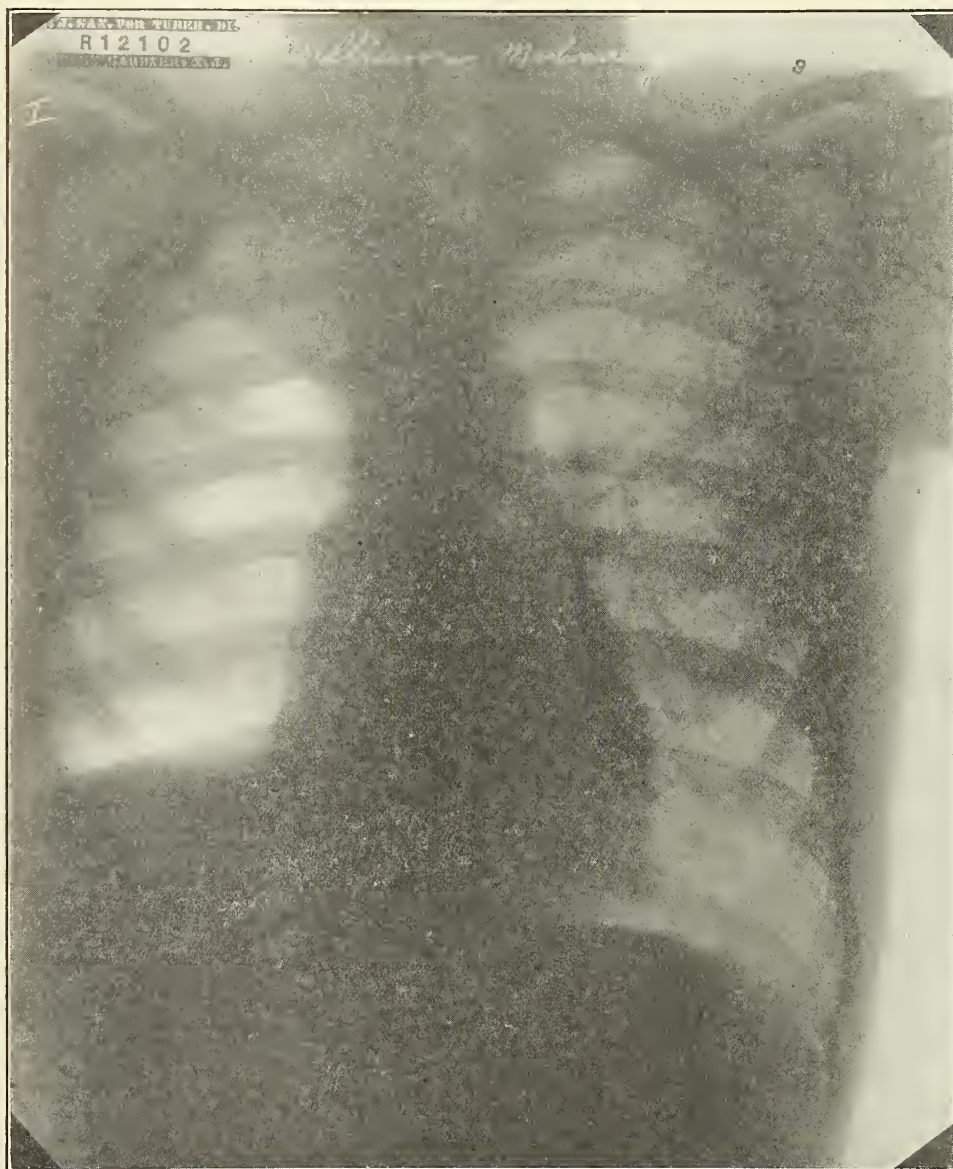


Plate No. 1, Case No. 12102, W. M. Patient a male, student, aged 22 years; admitted with a right hydro-pneumothorax, with fluid to the clavicle. Fluid was removed, compression maintained by induction of artificial pneumothorax. Pleuro-cutaneous fistula developed at site of the ninth interspace, permitting outflow of effusion and air, necessitating complete discontinuance of collapse therapy by air.

whether to perform and when to perform a thoracoplasty, requires careful study, and one of the most important points is an evaluation of the patient as a surgical risk. As I said

has persisted long enough. This pleural involvement causes an adhesion of the visceral to the parietal layer, often so intimate that no air space can be found, and in the majority

of instances where an induced collapse is unsatisfactory, the trouble is due to adhesive bands which suspend the lung.

If an unsatisfactory pneumothorax be continued for 3-4 months without either stretch-

hand, 70% of patients will show clinical recovery if these adhesions are severed.

Internal pneumolysis as most frequently used was devised by Jacobaeus, of Sweden, in 1913. He used an instrument similar to a cystoscope,

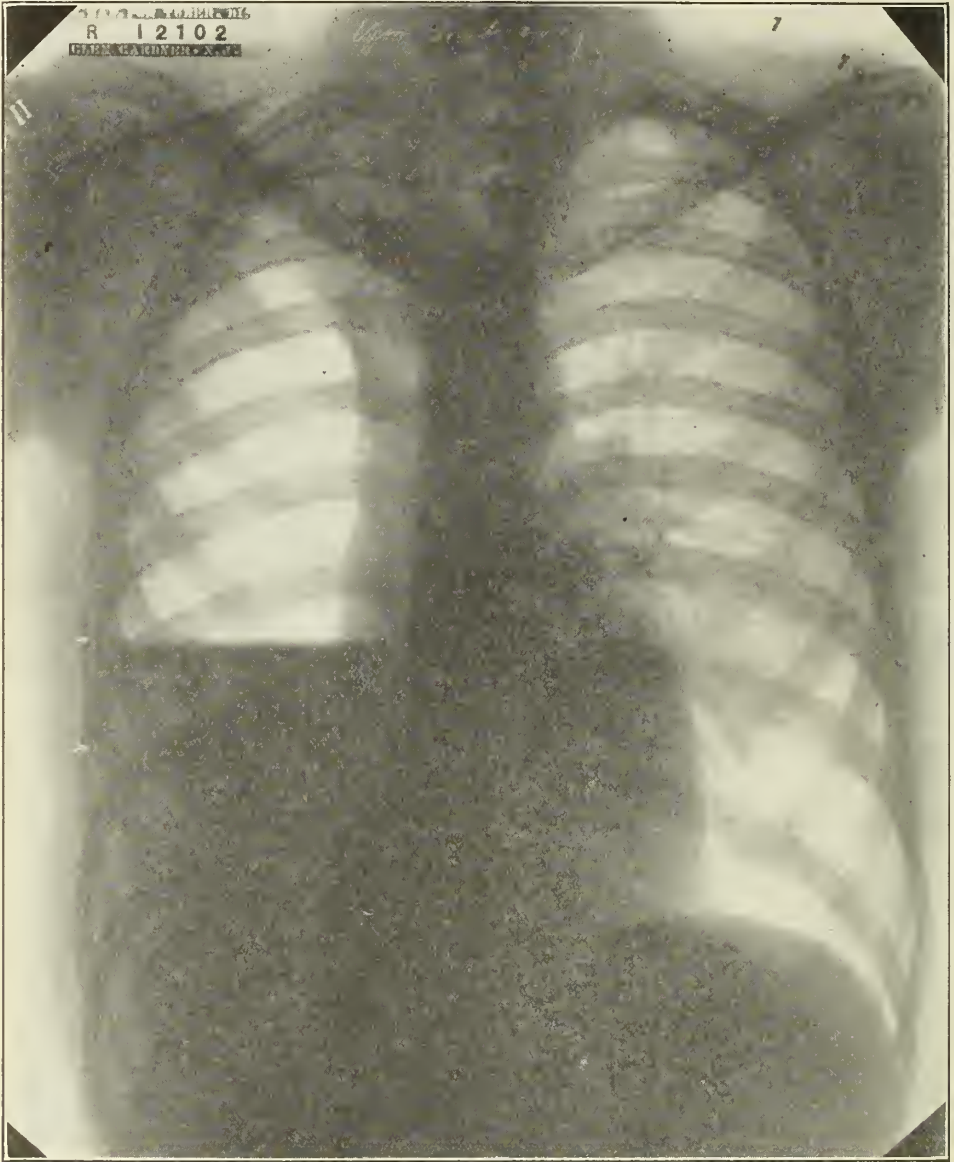


Plate No. 2, Case No. 12102, W. M. Pleural injection of 5% of Gomenol in sterile olive oil caused sufficient irritation to close fistula and permit continuance of compression by air. Note distinct fluid level above which oil compression is continued. Patient ambulant and at present has gained 50 lb. Sputum negative and patient is doing well.

ing adhesions or closing cavitation, it is unwise to continue it longer. Experience has shown that in cases of this type 85% of the patients will not recover, while, on the other

known as a thoracoscope, which is introduced through a cannula between the ribs. A pneumothorax having been induced, the pleural cavity is visualized and the nature of the ad-

hesions studied. If they are narrow, long and string-like, they are suitable for severing. If they be short and thick, containing possibly some lung tissue, they do not lend themselves safely to this procedure, because the tissue,

lapsing appear operable, an electrode is introduced through another opening, high frequency current is turned on, and the tissue is coagulated and then cut by changing the current. Severence by electrosurgery is much

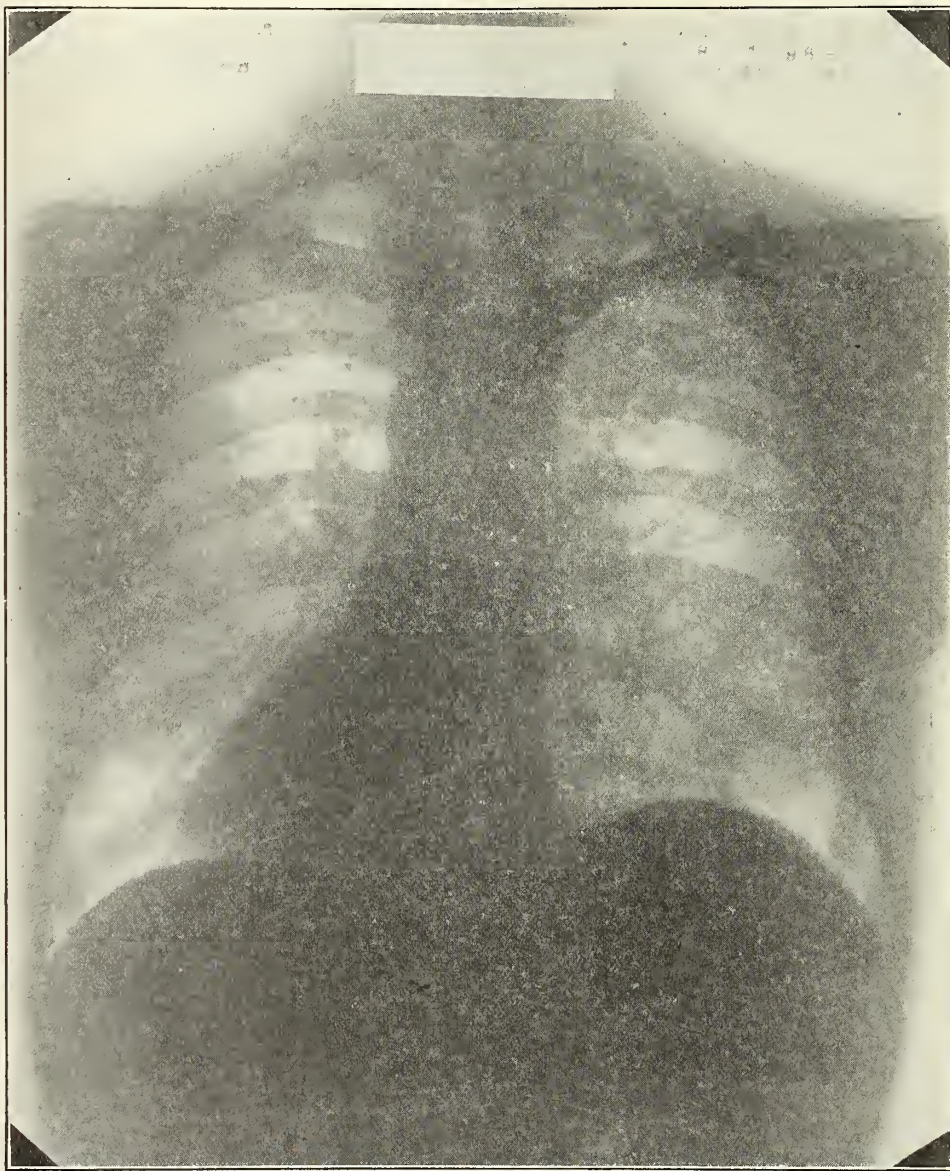


Plate No. 1. Case No. 10966, J. K. Male, 28 years of age, ill 2 years; admitted with marked massive right lesion, 2 cavities, with profuse expectoration, positive sputum, occasional hemoptyses; not suitable for artificial pneumothorax compression.

when cut, consists of a ruptured lung, which, in all probability, will be followed immediately by pyopneumothorax—a serious complication in a tuberculous patient. If the adhesions which prevent the lung from col-

quicker and safer than cutting with an actual cautery because the probability of hemorrhage is minimized. One cannot tell by radiograph alone which adhesions can be cut. Often those which appear difficult may be safely

and readily divided, while simple-looking adhesions, in the film, appear complex under actual vision.

External pneumolysis, or apicolysis, is the term applied to an operation outside the

cedure because of the prevalence of cavities in the apex. In actual practice it has never worked out as well as thoracoplasty because of wound infection, extrusion of the packing material or rupture into the pleural space.

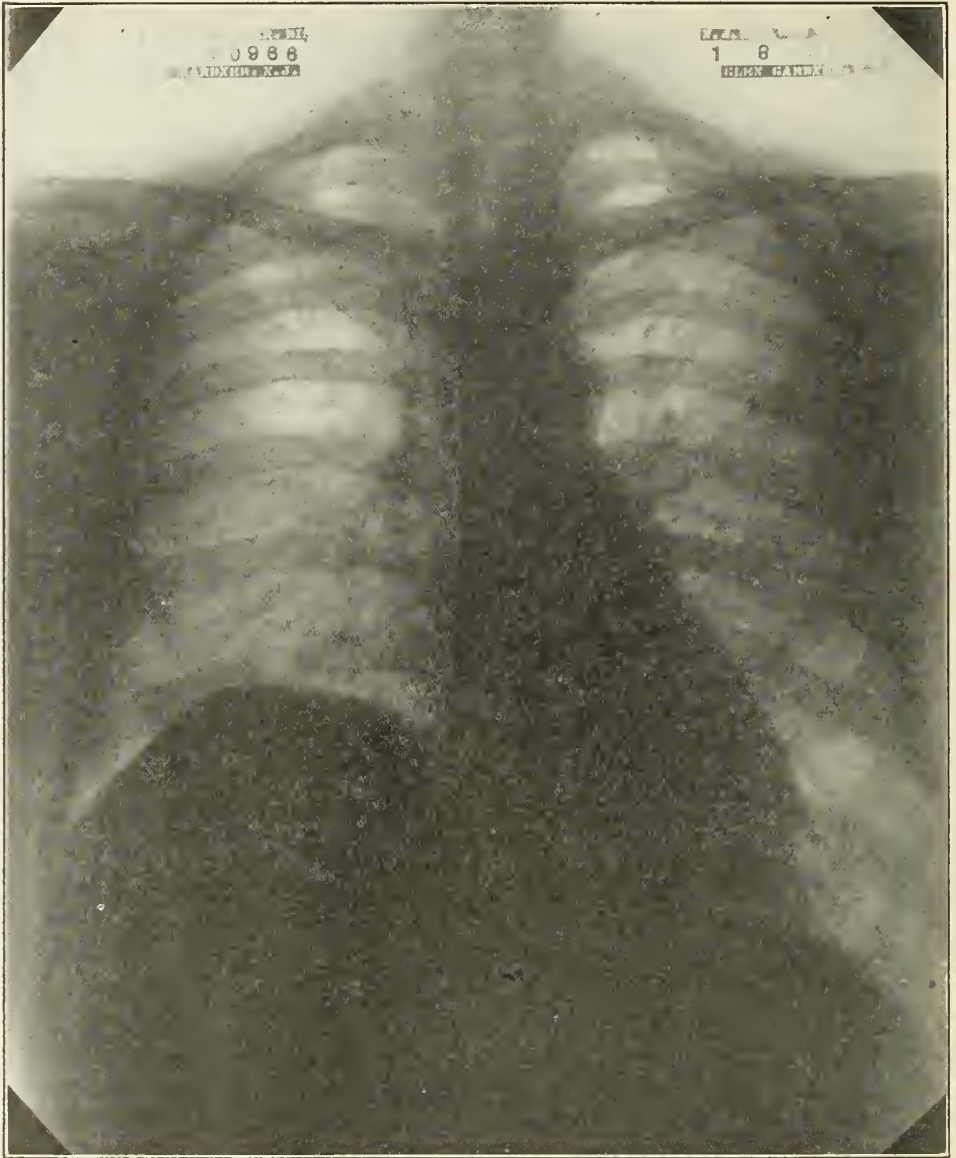


Plate No. 2, Case No. 10966, J. K. Right phrenic nerve resected 5 months after treatment began. Note disappearance of cavities; elevation of diaphragm, with diminution of left lesion. No cough or expectoration. Patient now earning his living 2 years after phrenic resection.

parietal pleura in which a foreign substance, such as paraffin or a rubber balloon is used to put pressure on the apex of the lung. The pectoral muscles or fat may be used for the same purpose. It appears to be a useful pro-

Multiple intercostal neurectomy, or sectioning of the intercostal nerves at their spinal origin, is performed to paralyze the intercostal muscles and leave the chest in the expiratory position. This is used in patients who

are old or otherwise poor risks for thoracoplasty; as it gives rest and practically no compression, unless combined with phrenicectomy. There is, as a rule, no danger in the operation and it is done completely under local anesthesia.

and it is particularly useful where a patient under pneumothorax treatment is losing his space and refills are getting more difficult. The other indications are: (1) to heal a broncho-pleural fistula; (2) to cure a tuberculous empyema; (3) to stiffen the pleura

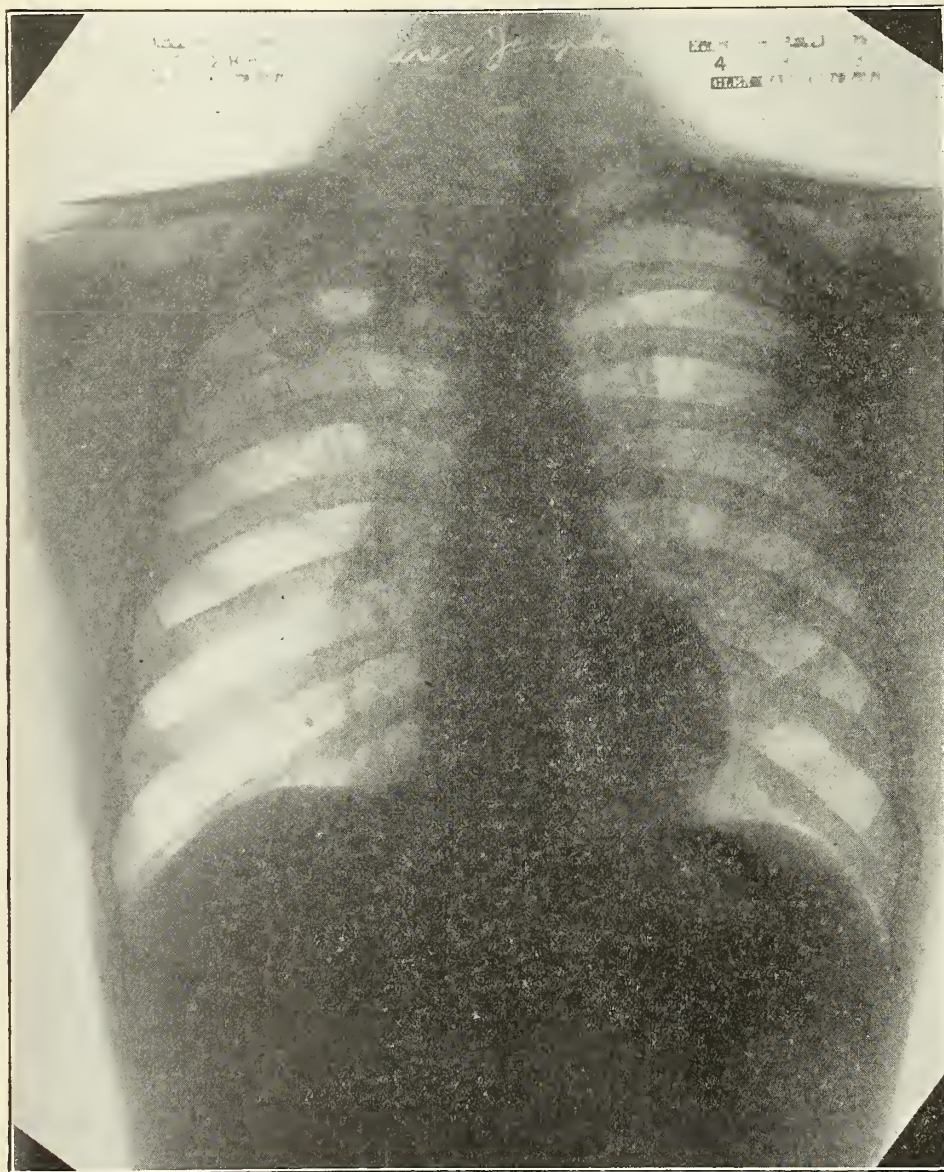


Plate No. 1, Case No. 11288. J. S. Patient a male, 28 years of age; massive right lesion with cavitation. Left lung little affected. Positive sputum, profuse expectoration, marked toxemia. Patient in bed.

Oleothorax, or the introduction of oil into the pleural cavity, is gaining in popularity. It has been much more widely used in Europe than in this country. A vegetable oil, with gomenol which is slightly antiseptic, is used,

where there is mediastinal shifting; (4) to compress a patient who is unable to report for frequent pneumothorax refills.

In conclusion, we feel that this treatment which causes the collapse of cavities, loss of

bacilli from the sputum, decrease or disappearance of sputum, cessation of fever and gain of weight, shows substantial progress in treatment of the disease.

Some advantages of these various types of

pectoration daily; many bacilli; fever; toxemia; patient in bed.

. Plate No. 2, Case No. 10530, M. B. 18 months after right-sided pneumothorax. Note 90% compression with diaphragm slightly de-

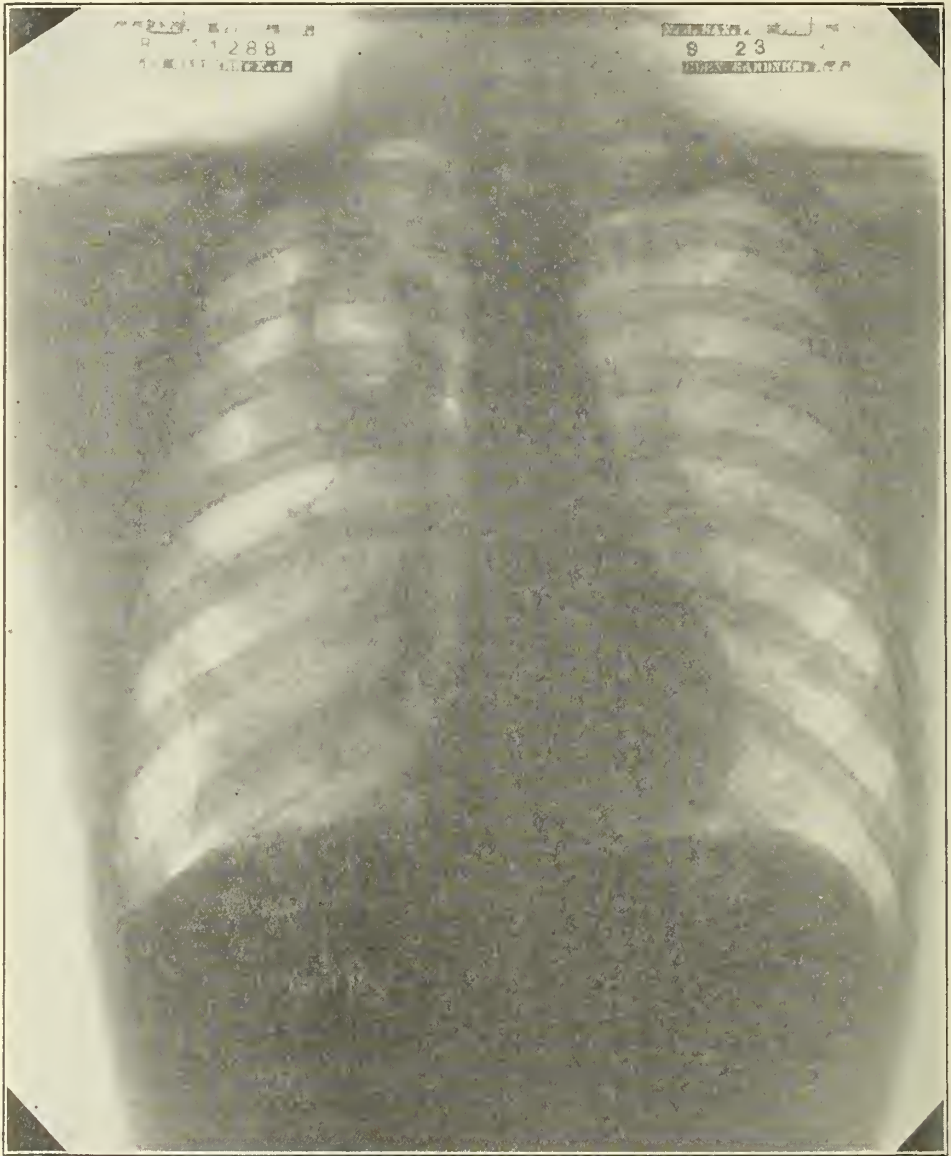


Plate No. 2, Case No. 11288, J. S. Note incomplete compression due to adhesion preventing sufficient collapse to obliterate cavity. Sputum still positive, patient improved, having gained 20 lb.

compression are shown in the accompanying illustrations.

Plate No. 1, Case No. 10530, M. B. Patient a female, 30 years of age; massive right lesion with 2 large cavities; 6 oz. purulent ex-

pected. Left lung unaffected. No cough or expectoration; absence of toxemia. Patient gained 51 lb. Two years later no recurrence.

Plate No. 1, Case No. 12237, S. L. Female, with massive lesion, entire left lung in-

volved; with cavity below clavicle and with infiltration throughout. Small lesion upper right. Patient bed-ridden, toxic; positive sputum; prognosis bad.

Plate No. 2, Case No. 12237, S. L., 3 months later; 80% compression on left side;

months later. Artificial pneumothorax begun on right side also. Note air in each pleural space. Both right and left cavities disappeared. Patient much improved; no cough or expectoration; little toxemia; gained from 107 to 158 lb. Present condition maintained.

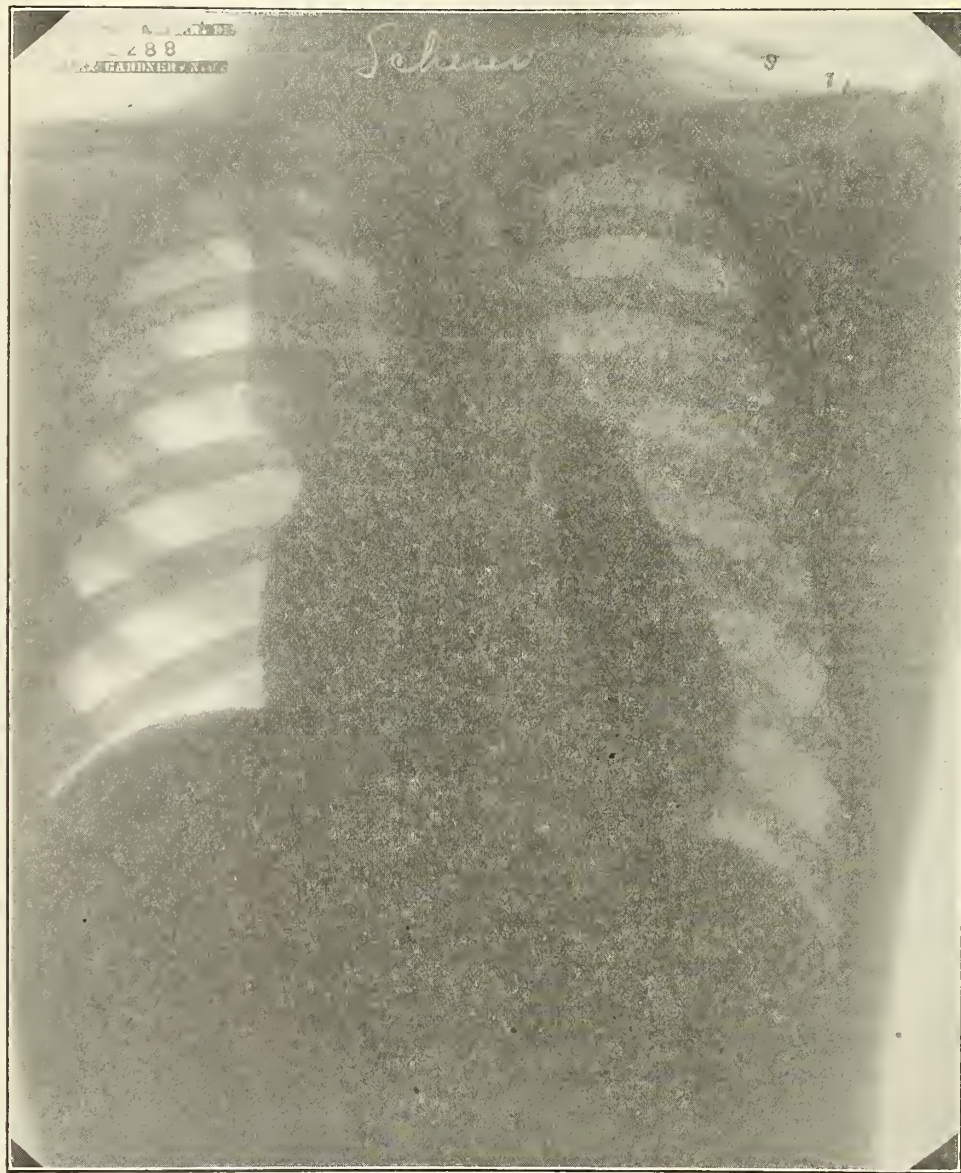


Plate No. 3, Case No. 11288, J. S. Right phrenic resection 12 months later. Note ascension of diaphragm, relaxation of right lung with closure of cavity, but with definite left mediastinum hernia between first and third rib anteriorly. (Usual location.) Sputum now negative.

cavity still evident but smaller; little sputum. Patient much improved but increased lesion in right upper with new cavity.

Plate No. 3, Case No. 12237, S. L., 2

Plate No. 1, Case No. 10311, E. D. Male, 28 years of age; ill 3 years; admitted with massive right lesion; with an apical cavity; markedly toxic; positive sputum; profuse

hemoptyses; contralateral lung little involved.

Plate No. 2, Case No. 10311, E. D. 3 months later; practically 100% compression attained by artificial pneumothorax; fixed mediastinum; left lung unaffected.

Plate No. 3, Case No. 10311, E. D. 3 years later. Compression discontinued. Affected lung allowed to expand. Absence of abnormal physical signs, cough, expectoration and toxemia. Patient at present time well.

Plate No. 1, Case No. 12102, W. M. Patient a male, student, aged 22 years; admitted with a right hydropneumothorax, with fluid to the clavicle. Fluid was removed and compression maintained by induction of artificial pneumothorax. Pleurocutaneous fistula developed at site of the ninth interspace, permitting outflow of effusion and air, necessitating complete discontinuance of collapse therapy by air.

Plate No. 2, Case No. 12102, W. M. Pleural injection of 5% of gomenol in sterile olive oil caused sufficient irritation to close fistula and permit continuance of compression by air. Note distinct fluid level above which oil compression is continued. Patient ambulant and at present has gained 50 lb. Sputum negative and patient is doing well.

Plate No. 1, Case No. 10966, J. K. Male, 28 years of age, ill 2 years; admitted with marked massive right lesion, 2 cavities, with profuse expectoration, positive sputum, occasional hemoptyses; not suitable for artificial pneumothorax compression.

Plate No. 2, Case No. 10966, J. K. Right phrenic nerve resected 5 months after treatment began. *Note disappearance of cavities; elevation of diaphragm, with diminution of left lesion. No cough or expectoration. Patient now earning his living 2 years after phrenic resection.

Plate No. 1, Case No. 11288, J. S. Patient, a male, 28 years of age; massive right lesion with cavitation. Left lung little affected. Positive sputum; profuse expectoration; marked toxemia. Patient in bed.

Plate No. 2, Case No. 11288, J. S. Note incomplete compression due to adhesion preventing sufficient collapse to obliterate cav-

ity. Sputum still positive; patient improved, having gained 20 lb.

Plate No. 3, Case No. 11288, J. S. Right phrenic resection 12 months later. Note ascension of diaphragm, relaxation of right lung with closure of cavity, but with definite left mediastinum hernia between first and third rib anteriorly. (Usual location.) Sputum now negative.

DISCUSSION

Dr. Samuel B. English (Glen Gardner): For one who has lived in a tuberculosis institution, as I have, for the past 25 years at Glen Gardner, comparing the things that happen to patients now under compression therapy, with the things that used to happen to them, it looks today like a new world for the tuberculous patient; there is no getting away from that fact. Most of the patients going to the sanatorium, other than those whose condition is diagnosed as minimum or hilum, have positive sputum. Many of the early cases become free from tubercle bacilli under the ordinary or hygienic-dietetic type of treatment, but very few of the so-called moderately advanced or really advanced cases, under the ordinary type of sanatorium treatment, ever become free from their tubercle bacilli. Those patients did become free from toxemia; they improved a good deal as to expectoration; they coughed much less; and their general condition improved; but after it was all said and done, the amount of local improvement, right down in the lesion itself, wasn't very great with the treatment not in excess of 9 months. I say 9 months because that is the average length of stay of State Sanatorium patients.

Dr. Geary says that from what he learned at a recent meeting of the Association of Thoracic Surgeons, at some institutions they are administering some type of compression therapy for 95% of their patients, which is a high figure, but, as I see it, for institutions, irrespective of the type of patient admitted, from 30% to 60% of the patients should be entitled, under present-day conditions, to some one of these types of compression treatment. In fact, it is being done right along. It isn't done only in Glen Gardner, but it is being done in many institutions, and, instead of the old rate of 10% of patients going out with negative sputum, 60% to 70% of the patients receiving compression therapy go out with negative sputum; certainly, from the standpoint of the public, a tremendous gain. We treat in New Jersey each year about 6000 patients. There are about 2000 "tuberculosis beds" in New Jersey, and they "turn over" just about 3 times in a year; that is 2000 beds provided for 6000 patients a year. If 50% of the 6000 patients (3000) are eligible for some type of compression therapy (they are not all getting it yet), and 60% of these (1800) go out with negative sputum, we will be helping 1800 families, or close to 7500 people, calculating 4 people in a family, who will thus be freed from infection.

How long does the benefit of this treatment last? The majority of the people, that Dr. Geary showed you on the slides, have been out of the sanatorium for 1½ years. Most of them have had to have their pneumothorax continued. We have a good many patients now who have had artificial pneumothorax a year or more. They have been discharged as long as 2 years. Some have been

out 3 years and they still have closed cavities if they were closed when they went out of the institution, and they still have negative sputum.

Of course, we are treating people who have more than unilateral lesions. In some of the patients whose pictures Dr. Geary showed today there was very considerable trouble on both sides. You take the patient who comes to the institution with trouble on both sides, and you put him to bed, and you are doing all you can for him, and yet he is doing badly. You had better give him the advantage of some type of compression therapy. If you take the patients who have $2/3$ of one side and $1/3$ of the other side involved, and with some type of compression therapy you compress the major side, nature will take care of the other side. We see that, frequently.

Dr. Geary is a surgeon, and he did not say much about artificial pneumothorax which is being done now almost exclusively by the internist. The ordinary sanatorium doctor is doing it, and it certainly does shorten treatment, and it allows the 2000 available beds we have in New Jersey to accommodate many more patients than formerly.

If we can get established throughout New Jersey (and we will get it done soon) a number of centers at which these compression therapy procedures can be continued, or the refills can be given after people leave the institutions, we can, as soon as such people are free from tubercle bacilli and we are sure they can get a clean bed and 3 proper meals a day, discharge them.

It has been the trouble in our institution at Glen Gardner that unless these patients came from certain areas only, we had to keep them because they couldn't get this type of treatment after they were discharged. Now, Dr. Pollak has gotten started and is doing good compression work in Hudson County. Dr. Runnells, at the Union County Sanatorium, is doing the same, and so is Dr. Collier, in Camden County. This thing hasn't been going very long, but it will ultimately be worked out and arranged, I think, so that these people can go to the institution where they will get their collapse therapy started, for it is an institutional proposition at least as far as starting, and then to some near home place for refills if needed.

There is one thing to be careful about. Lots of patients think—"I am getting compression therapy today, so I don't have to be so careful." I think that is one of the reasons why all of these patients, I don't care what type of treatment they are going to take, should go to a sanatorium, where they will be taught the importance of continuous personal care.

Phrenic avulsion, or the operation in which with a strong pull the greater portion of the phrenic nerve is torn loose, is not popular with us. It is easy to see how, with adhesions between the nerve sheath and the pericardium, much damage may be done. We prefer to see the phrenic nerve as it is removed. It is not difficult to remove 8 in. or more, and in so doing get out the accessory nerve.

One of the films Dr. Geary showed was that of a man who had tuberculosis for 3 or 4 years. He earned \$7000 a year before the business depression came along. He has been making, since he went out of the sanatorium, \$3500 a year, despite the depression. He had that large cavity in the right upper chest. He took treatment for a considerable length of time. The ordinary type of treatment benefited him but little. He had 4 oz. of expectoration daily and it was loaded with tubercle

bacilli. He had treatment with the ordinary artificial pneumothorax for nearly a year and it didn't bother him. Then he had the phrenic nerve resection. Dr. Geary took out 11 in. of the phrenic nerve, and within $2\frac{1}{2}$ months that entire cavity, which had been $2\frac{1}{2} \times 3$ in., shrunk down so you couldn't see anything. The man has gained weight. He is the picture of health. He has been out of the sanatorium 16 months, is making \$3500 a year, and he has no evidence of any disease whatsoever.

It is surprising how these patients will stand surgical manipulation. A tuberculous patient is generally looked upon as a poor surgical risk, and yet if you get them ready, even for the formidable operation of extrapleural thoracoplasty, they respond wonderfully. It is a formidable operation, with an operation mortality of 10%; in some places as high as 30%. But suppose you do have a 30% mortality, they are patients who were headed for the inevitable if you don't do something. If you have a mortality of 30%, that leaves 70%, and if only half of that number gets well, that is 35% more than you would have saved under the former treatment; and you have not only helped the patient, but you have rid him of tubercle bacilli, which is an additional help, because it stops him from spreading the disease.

Of course, it is not all so easy. There is a good deal of argument about the complications. Nearly every one of the artificial pneumothorax patients develops pleural effusion. That is a hindrance in probably 5% of the cases, and in some of those patients the fluid becomes infected and you will have an empyema, which may lead into a good deal of trouble, and that patient may have to have an extrapleural thoracoplasty before you get through with it, but, he would have died in the first place if you hadn't done something.

The effect on hemorrhage is another surprising result. We used to have, at Glen Gardner, with 450 patients, 12 to 30 hemorrhages a day that would demand the attention of the doctor. Of course, in an institution where you are dealing with tuberculosis all the time, hemorrhages are in the ordinary run of the day's work.

Approximately $\frac{1}{2}$ our adult patients are now getting some type of compression, and we don't begin to have the number of hemorrhages formerly recorded. When you don't have the hemorrhages, you don't have the pneumonias; and when you don't have the pneumonias, you don't have the exacerbations and spread. It has really changed the outlook for the tuberculous patient. Of course, lots of our friends think that we are carried away with enthusiasm. I think the medical profession is conservative generally, and we are not very easily carried away, but you can allow and you can take off 25% for enthusiasm and still this is a mighty good thing for tuberculous patients.

Dr. B. P. Potter (Hudson County): It is inspiring to hear Dr. English emphasize the present methods of handling tuberculous patients and compare that with the less adequate methods 25 years ago. Such encouraging remarks from a pioneer in tuberculosis work serve a double purpose; they give added impetus to us younger men, believing in the superiority of present methods; and they stand out as a direct challenge to the men at the head of tuberculosis institutions who, for one reason or another, cling to the past. Within the past year I came in contact with a man who had been in phthisiology for 15 years

and is at the head of a moderate-sized and well-endowed sanatorium, but whose treatment of tuberculosis consists in placing the patient in the sanatorium and leaving him to fate. When the younger men in that institution attempted to introduce newer methods they soon found themselves on the outside.

In Hudson County we have attempted this year to reach some definite conclusions about collapse therapy, and we may not agree to some of the statements that have been made. Before we disagree, however, we wish to agree with Dr. Geary in saying that with the exception of few cases, pneumothorax, whenever it can be established, should command first consideration where collapse is desired.

The indications for pneumothorax have been given. We merely wish to stress the point that cavitation should be the primary reason for collapse, provided the patient had been given a preliminary trial period of 1-6 months, during which the patient is given all the benefits of the bed-rest and hygienic treatment, and is closely observed by frequent physical examinations and serial radiograms. It is to be understood, of course, that this trial period is given primarily to patients whose disease from the evidence gathered is of recent origin and who present a small cavity (2.5 cm. diameter), and who have had either inadequate or no bed-rest care at all. On the other hand, patients with larger cavities, or those who have had such treatment or whose disease is not recent, should be given the benefit of collapse therapy as soon as the diagnosis of pulmonary tuberculosis is made.

We stress cavitation as the primary indication for collapse for 2 reasons: (1) because of the known inherent danger that a cavity or cavities with persistent positive sputum hold; and (2) because we have seen many patients with simple infiltration in the lung that got well without pneumothorax because of patience with the bed-rest treatment. However, we have given pneumothorax to some patients who had no cavitation because the preliminary test resulted in no lesion improvement. By improvement, we mean a change in the pathology, as revealed by serial radiographs, for clinical improvement means very little to us, and I am glad that Dr. English emphasized that point in his discussion. Many patients gain weight, become afebrile, cough and expectoration subside, but the sputum remains positive and serial x-ray films show no appreciable change in the lesion, or, an actual progression.

It becomes apparent, therefore, that our results as achieved by pneumothorax, phrenicectomy or thoracoplasty, should be anatomic results. If by collapse therapy one can compress an area of infiltration, or approximate the walls of cavitation, then one has accomplished something that bed-rest has failed to do.

We cite the following figures merely to support our point. In 30 patients with a satisfactory collapse obtained, 93% showed improvement as evidenced by closure of cavitation or compression of infiltrated area; and in 86% the sputum turned negative after pneumothorax. We are convinced that anatomic change in the lesion can be established sooner, and with more certainty, by pneumothorax than by other forms of collapse therapy.

It is held by some that a phrenicectomy, or one of the less radical forms of phrenic operation, should precede pneumothorax in all cases where collapse therapy is considered. Of this we are not convinced and present the following data for com-

parison with that cited above for pneumothorax. In a group of 18 patients, evulsion was done on 16 and a temporary interruption for 2; and in all there was a successful paralysis, with a surprising rise of the particular hemidiaphragm; only 2 presented no cavitation. Careful measurement of the cavities were made before and after operation, and serial films were taken for months following operation. In 7 (38%), the sputum turned negative after operation; only 4 showed a reduction in size of the cavity; and in one, with a basal cavity, complete closure resulted.

It may be argued that this is not a fair comparison because in the pneumothorax cases we were dealing apparently with a free pleura, whereas in the group just mentioned the phrenic operation was resorted to because pneumothorax could not be induced. This is not entirely true, however. In about 70% of our pneumothorax cases we encountered adhesions which gradually stretched sufficiently to give a satisfactory collapse of the involved area. There was no appreciable difference in the type of cases in these groups. It is apparent, therefore, that one is forced, on the whole, to conclude with Dr. Geary that pneumothorax should hold first place.

Now, as for thoracoplasty, we contend that, as with pneumothorax, an attempt should be made to collapse only the diseased portion of the lung; in other words, a selective thoracoplasty over the site of the pathologic process should be done.

Of the 12 patients, 1 had a complete paravertebral thoracoplasty, and on 11 the procedure was an upper thoracoplasty.

The results show that in 7 there has been complete closure of the cavity, the sputum is persistently negative and the patients are doing well. Fortunately, we have had no death; probably due to the fact that we insist on 2 important prerequisites for thoracoplasty—selection of patient and selection of surgeon. We are not in a hurry to operate merely because a patient is not doing well or will probably die if "something" is not done. We prefer to take a patient who has been under observation for a long time—at least 2 years—and who presents a predominantly proliferative lesion.

Dr. B. S. Pollak (Jersey City): I just want to say a word supplementing the remarks of Dr. English, as he and I have been personal and institutional friends for 25 years. These younger men are doing the work of pneumothorax, and they have an aptitude for this work for which they ought to be credited. I believe with English, that not every institutional man can give pneumothorax for they do not know how. Pneumothorax is still a rather important method of treatment and not at all without danger. In personal experience, we have had 4 deaths, during the past 5 years, upon initial treatments of pneumothorax. I realize there are some men who consider pneumothorax an inconsequential matter, and one of our colleagues claims that he has never seen a case of pleurisy in 10,000 refills. These are exaggerations and are apt to confuse the picture. We cannot make ourselves believe that this is a procedure which should be regarded lightly. There are certain responsibilities in advising a patient to have pneumothorax administered. I do not know whether I would care to have my thorax punctured 15 to 100 times in order to get my lung collapsed.

Collapse therapy has come to stay, however, and whether pneumothorax, phrenicectomy or thoracoplasty, time alone will tell. Even though our experience has been great, and the experience among

other men in the field has been greater than ours, we are still in the early stages of the development of this treatment.

Phrenicectomy, observed by a casual onlooker, is considered a very simple operation. Some people think appendectomy is an easy operation, and so phrenicectomy is to be considered in that sense. I believe that phrenicectomy is a serious operation.

At the Jersey City Medical Center, we are conducting a clinic for pneumothorax. All our men are enthusiastic: They believe in their work, they are not lazy, and so far as our pneumothorax cases are concerned, the patients are being sent back to the institution regularly for their refills because the men who are doing the pneumothorax work desire to check up and see what actually occurs. A longer observation of these patients will permit us to report in the future concerning the actual results.

Dr. Samuel B. English (Glen Gardner): I don't want the opinion to get out that I considered this an easy thing that any Tom, Dick or Harry can do. Certainly they can't do it. It is a deplorable thing, however, that more people don't do it. Because more people don't do it, we have 60 patients, ex-sanatorium patients, living in different sections of the state, who come back to get their refills. They travel 10,000 to 15,000 miles a month to get their treatments. Everybody in Glen Gardner doesn't do this. Only a certain few of our men do it. It is determined as the result of careful study and staff meetings and it does require good clean work. I have no brief for the phrenic nerve operation by itself. It has never been done by itself in our institution. Anybody who is trying to close cavities with the phrenic nerve operation alone will have to back up and start on a new road. I don't think anybody ever expected the phrenic nerve operation was going to close cavities by itself; it doesn't with us.

BONE METASTASIS IN BREAST
CANCER*

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As early as 1834, bone metastases were recognized by Sanson, and since that time many observers have reported their findings, together with theories as to the avenues of dissemination and the histologic variation seen in these metastatic lesions. This paper is a brief report of 106 cases of breast cancer which have come under our observation at the Jeanes Hospital, Philadelphia. It is written in order to stress the importance of a routine roentgenographic examination of the chest and osseous system prior to any surgical intervention in the treatment of breast malignancy.

* (From the Department of Roentgenology, Jeanes Hospital, Philadelphia, Pa.)

The percentage of metastatic bone lesions secondary to mammary cancer as computed in many clinics is from 5.2% to 53%. This variation is accounted for not only by the thoroughness of the Roentgen ray study, but also by the class of patients examined. Copeland, in his review of 1914 cases of breast cancer, found secondary bone lesions in only 100 patients, or 5.2%. Kaufmann's series of 63 included only fatal cases and, therefore, the high rate of 53%. Handlye's study of 329 necropsies found an incidence of 22%.

In this series of 106 cases, metastases were found by Roentgen ray examination in 57, or 53.8%; 22 of these in the chest without apparent bone involvement and secondary bone lesions were found in 35 patients, or 33%.

The following shows the frequency of the involvement of the various bones:

Skull	12	Dorsal spine	11
Cervical spine	3	Lumbar spine	17
Shoulder girdles ...	10	Pelvis	20
Humerus	8	Femur	24
Radius	1	Tibia	2
Ribs	18		

The average time interval between recognition of the tumor and our discovery of bone lesions, is 4 years and 8 months. This interval is actually too great, since a number of the patients had far advanced multiple metastases at the time of our first examination.

In the 49 patients with no demonstrable metastases, the average interval between recognition of the tumor and the last routine study, is 2 years and 7 months.

Of the 57 patients showing metastases, 44 have died; and of the 49 cases in which we have not been able to discover secondary bone lesions, 31 are living.

The average age of the first group is 57 years and 9 months, and of the second group, 57 years and 3 months. The youngest patient was 29 years old; the oldest was 94 years.

A number of authors have observed the greatest percentage of bone metastases where the primary lesion was scirrhus carcinoma. Copeland, in his report of 73 histologic examinations, states that 58 (or 79%) were of the scirrhus type; an observation not substantiated in our series of 60 pathologic examina-

tions, in which only 33% were scirrhus carcinoma, as shown by the following table:

Type of neoplasm	No. of cases with bone metastases	No. of cases without bone metastases
Carcinoma simplex	13	7
Scirrhus carcinoma	10	7
Adenocarcinoma	4	10
Medullary carcinoma	2	2
Periductal carcinoma	1	0
Unclassified	1	0
Small cell carcinoma	0	1
Mucoid carcinoma	0	1
Papillary duct	0	1

A number of patients have been referred to our institution for postoperative irradiation in whom, after careful roentgenologic study of the chest and the osseous system, metastatic lesions were found. The discovery of these prior to surgical removal would have contra-indicated so radical a procedure.

It is our practice not only in positive, but also in suspected, cases of breast cancer to make first a thorough Roentgen ray examination and follow this by irradiation before biopsy or operation. Subsequent to the surgical removal, if malignancy is found, a second series of irradiation therapy is given.

The relatively high percentage of metastatic lesions reported in this paper may be accounted for in part, by the admission of many patients with advanced conditions for palliative irradiation treatment. A large number had been previously operated upon and had a cure been effected they would not have come under our care. Nevertheless, if the attention of any of our surgical friends can be directed to the importance of a roentgenologic survey of their patients suffering with suspected malignant disease of the breast before instituting radical surgery, their percentage of cures will increase, their patients' suffering will be reduced, and their lives prolonged.

DISCUSSION

Dr. Ernst A. May (Newark): I think Dr. Downs' paper is very timely. It is well worth-while to draw the attention of the general practitioner, as well as the surgeon, to the fact that malignancy, especially of the breast, frequently spreads into the bony system. We have seen early cases in which we found only a small lump in the breast, so small as to be barely noticeable, with metastasis in the pelvis and spine proved by x-ray pictures.

Unfortunately, we frequently see such a patient treated by sedatives, leaving the impression that the trouble is merely a rheumatic one, and over-

looking the necessity for taking an x-ray picture to find the true diagnosis. Perhaps the physician knows what the trouble is, but I think that even in these cases, radiotherapy helps. At least it alleviates pain, if it doesn't heal the lesion. What we have to contend with in these metastases in the bone is, that once one starts in the spine or any of the other bones, we never know where the next one may appear. Still, I have seen very good results by radiotherapy on bone metastases in cases where half of the pelvis has disappeared. There has been great alleviation from pain, morphia was not necessary, and the suffering up until the time of death was greatly relieved.

Dr. William Klein (New Brunswick): I would like to see this society go on record as urging the surgeon not only to send those patients back to us for postoperative treatment, but also for pre-operative radiation. I think this is very important. A surgeon gets the patient and amputates a breast just as soon as he feels a mass in the breast.

I believe that, at Memorial Hospital of New York City, it is routine to give both pre-operative and postoperative radiation in all breast malignancies.

PATHOLOGY OF THE LIVING HUMAN EYE AND ITS CLINICAL RECORDING BY COLOR PHOTOGRAPHY

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Some of the other arts and sciences are much more advanced in their illustration, so far as text-books are concerned, and in their material for teaching, than are we. That is not because of any lack of inventiveness, or lack of energy, on the part of eye men, on the whole, but rather because of the tremendous difficulties which surround anything you attempt to do in the way of photographing the eye in the living subject, either in motion or in still pictures. That probably will not be apparent to you until you consider that for all photography light is essential; and remember that every mechanism of the living eye is adjusted to combat just that very element in large quantities. The motion of the eyeball itself, the closure of the lids, the almost instantaneous reaction of the pupil, the general reactions of the individual against sudden large, noxious quantities of light, prevent to a certain extent even black and white photography, and certainly stand as a tremendous barrier to doing any photography in color;

even more so when moving pictures are considered where the matter of the fourth dimension, namely time, must be taken into consideration.

It is possible to do color photography almost instantaneously with large quantities of light without causing any trouble to the subject; when, however, you attempt to do that continuously, as you must in making motion picture recording, then of course the reaction of the individual becomes so violent that your experiment is almost over before it is begun.

What is the necessity for recording these things? Why do it, in the first place? Why not continue to teach students as we have always taught them, by using the clinical material itself? That, of course, has been done in the past, and can be done in the future, but when you all—who had that training—recall the little old black cubicles, with sections of 20-30 students on a day like this, when you got a patient seated in there, the pathology you wanted to show all ready to your hand, that only about 4 students got near enough to look over your shoulder, and of the 4, only 2 were in line to see what you wanted them to see when you concentrated all of your illumination on the eye. The others were talking among themselves in the back of the room. The atmosphere of the room became more and more unsupportable, and finally the whole thing was given up, with the patient and instructor usually disgusted.

If, on the other hand, you contrast that with the same situation where you can record that pathology by means of the microscope, and by means of the camera and color plates, then you can take your section and simply talk to them as I am doing now with you. All they have to do is to sit before a small screen, such as this, in comparative comfort, and you can show them exactly what you want them to see because the picture, if you have taken it yourself, of the clinical subject, records just the pathology and from just the point of view that you want it recorded; and when you show that picture there is no choice on the part of the observer but to see and to listen. He must see what you want him to see. That is the value to ophthalmology, and to clinical medicine in general, of such recording.

So little is known in general about the method of making color photographs that I think possibly a word might be of some use, although I don't want to bore any of you who are experts with a comparatively simple matter.

The color plate is made up of a glass backing, and then behind the glass, laid on to the glass is this very thin emulsion of 3 color granules, red, blue and green. The whole surface of the plate is covered with those red, blue and green granules, and then on the back of that layer of granules is laid the sensitive photographic emulsion.

In taking these plates, you do not expose the photographic emulsion directly to the subject through the lens, but you put the plate in the reverse position so that what light strikes the photographic emulsion has first to pass through the red, blue or green granules. In that way you get the initial color separation of your light into the 3 spectral divisions of red, blue and green.

Now, the image is developed on the back of the plate, but no prints can be made from such a plate, and the positive image must be made from the negative right on the plate; so a process of reversal is used whereby the original image is etched out of the emulsion in a bath, and then, instead of the rest of the silver being taken out by hypo, as is done in ordinary photography, the plate is exposed to light and redeveloped. In that way you have the parts which were originally the black image becoming light and the parts which were originally the white background becoming black, and you have a *positive plate made from a negative* without disturbing any of the relations of the emulsion and color screen. When you project that subsequently, you get the image being translucent in those portions which are light, and the light going through the plate is permitted to go through the color granules to give you a representation again in color of the original object.

As you see, there are 2 or 3 drawbacks to it. The first is that the plate is always an original. It can't be copied. If it is broken, it is destroyed irrevocably. But, it is the best so far that color photography has been able to develop.

There are some other methods of doing this thing which have been developed recently for the moving pictures, one of which I will show you. The common or ordinary Eastman process of color photography is not feasible for clinical recording because of a situation which is comparable to these color plates; in other words, the plate itself, as you can see, is extremely dense. Where you have to separate your light into 3 components in the Eastman moving picture method, you have to use 3 fairly dense filters, which go right on your taking camera. That means that your light volume is so decreased that even with the modern high speed lenses it is necessary to use those of the largest aperture even to take pictures in color in direct brilliant sunshine.

There have been 1 or 2 other methods devised, one of which is the process of Mr. O'Grady whereby for moving pictures a 2-color process necessitating the use of only 2 screens, and thereby speeding up the picture-taking by a third, has become practical; and these colored motion pictures which I shall show you were taken by that method.

For 4 or 5 years I tried to develop some means whereby these plates could be copied so that instead of just the originals others might be available for teaching purposes. There seems to be no practical way to copy color plates except to project these, as I shall project them, on a translucent screen, and then to take a moving picture camera and re-photograph the image on the screen. In that way you can get a copy of the original plates on motion picture film, and once you get that, of course, as many copies by printing can be made as necessary. So, by combination of the high speed instantaneous still photography, together with the motion picture photography by Mr. O'Grady's or some other method of that sort, you may now have available the means for recording in color all of your clinical subjects.

(The author then gave a screen and slide demonstration, showing both still and moving pictures in color, of external eye and of intra-ocular conditions; a really remarkable piece of work.)

WINTER DAY

By Arthur Davison Ficke

Gray misty world of snow
Where fluttering to and fro
The clear frost-petals fly
Under a leaden sky—
Into your mists I seem to pass
Through the protecting glass,
And seem myself a snowflake, hurled
By wild winds up and down the world—
Asking of this short hour
Nothing except to feel that power
Which sustains snowflakes till in the end they must
Fall down to dust,
Having swept half the heavens: I ask no more:
Others have asked a greater gift before,
And yet, for all their pleading, rest not now
Gem-like on any winter-sacred bough.

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Each member of the State Society is entitled to receive a copy of the JOURNAL every month. Any member failing to receive the paper will confer a favor by notifying the Chairman of the Publication Committee of the fact.

NOTE.—The transaction of business will be expedited, and prompt attention secured if:

All papers, news items, reports for publication and any matters of medical or scientific interest, are sent direct to The Editor, DR. HENRY O. REIK, Vermont Apartments, Atlantic City, N. J.

All communications relating to reprints, subscriptions, extra copies of the JOURNAL, books for review, advertisements, or any matter pertaining to the business management of the JOURNAL are sent to THE CHAIRMAN OF THE PUBLICATION COMMITTEE (address above), Newark, N. J.

MEETING LEGISLATION HALF-WAY

That—"This is a small world"—is one of those axiomatic expressions frequently heard and not infrequently demonstrated, was borne out by a recent experience. During the month of September, while vacationing in Switzerland, we saw one morning in a Paris edition of the New York Herald, a statement to the effect that Governor Moore, of New Jersey, had requested Princeton University to select from its Faculty, (preferably among those teaching or doing research work in the field of economics), a Commission to make an investigation and study of the existing form of state government, with particular regard to efficiency and cost, and to report to the Governor, before the end of this calendar year, such criticisms and recommendations for improvement as might seem desirable. The newspaper story proceeded with a listing of the several departments and various subjects to be included in the investigation but without any reference *whatsoever* to public health or to the practice of medicine as connected therewith. Indeed, the absence of such references was so noticeable as to make us suspicious, especially upon recalling to mind a certain group of Bills introduced during the General Assembly of 1932 at the request of the Governor. To refresh our memories of those Bills, let us recall these facts:

In the campaign of 1931, the state budget was one of the most important topics of discussion. Governor Moore's victory was based, in some measure surely, upon his promises to conduct an economic administration. It is said

that he gave much thought to such matters during the interval between election and inauguration, and he caused to be introduced during the General Assembly of 1932 a series of Acts for the redemption of his promises. We were much embarrassed by having to oppose Governor Moore's plans for re-organizing the State's business methods. It seemed to place us in that group of citizens which indulges freely in destructive criticism, but never offers anything constructive. However, we felt that the Governor's offerings would not effect his stated purpose.

Our readers will remember that one of those Bills proposed abolition of the State Board of Health and the substitution of a Department of Health whose Chief should be a member of the Governor's Cabinet, which was to be established; and another Bill proposed to place the State Board of Medical Examiners, and all boards of similar character, in a Bureau to be set up in the Department of Education, but which provided no adequate personnel in that Bureau to perform the highly specialized tasks of the present Board.

The Governor drove us to join the opposition because of 2 mistakes which he made: (1) That he, or his advisers, had not sufficiently well investigated existing conditions in regard to health matters; and (2), that he had not sufficiently considered the probable consequences of the proposed legislation. Through the medium of letters, private conferences, and appearances before the Legislature's committees holding public hearings, we managed

to make clear the facts which had been thus overlooked, and the bills were defeated.

Now, this past September, reading of the appointment of the Princeton Commission, we said to ourself: "Again it is the same old story; every other topic will be investigated and studied, and if another profession be involved its members will be asked into conference to discuss possible legislation. But public health problems will be given only a casual glance. The medical profession will not be consulted, and the first knowledge of impending changes to reach us will come when a budget of proposed legislation appears at Trenton."

That soliloquy was in no sense a criticism of this particular group of investigators. It was merely the outgrowth of experience, and was based upon a wonderment as to why laymen, singly or in groups, consult with other organizations—professional, business, or artisan—in advance of proposing new legislation by which they or their functions might be seriously affected, but seem to consider it unnecessary to confer with physicians regarding health laws or machinery, or their own "place in the sun".

Immediately upon our return home we consulted Dr. Schauffler, and it was through his courteous intervention that we received an invitation to confer with the Chairman of the Commission, Prof. Dodds, at Princeton. We soon learned that our early suspicions were justified. The Commission was, in a mild way, investigating the medical field; its members were tolerably well informed concerning health matters, through the reading of published reports. Some of them had visited the State Board of Health; a smaller number had seen the inside of some institutions; and, a report upon existing conditions was in process of preparation. But, there had been no consultation with physicians outside of those institutions, nor as an organization, and, apparently, no such consultation was scheduled.

When the mountain shows no inclination to move toward Mahomet, it behooves that gentleman to come out of his tent and direct his footsteps toward the mountain. He did just that. Sought an interview; was most gra-

ciously received; ascertained the length and breadth of the study; proposed a conference with a small, special sub-committee from the Welfare Committee; and secured the appointment of such a committee, consisting of Drs. Lippincott, McBride and Green. Later, Drs. Morrison, Mahaffey, McGuire, English, Levy, Pollak, Morrow and Knight, and Mr. MacDonald, were brought into another conference with the Commission. As a result, an agreement was reached which seems satisfactory to everybody because it was based upon frank discussion and perfect understanding.

In this connection, we might call attention to a working principle of the Welfare Committee, adopted upon recommendation of Dr. McBride several years ago, and which is: that any legislation desired by physicians or medical organizations should be submitted to the Welfare Committee for its consideration before being presented to the Legislature. In addition, some of us have contended further that in the event of adverse legislation appearing from any other source, the best course of procedure is to seek a conference with the person or group responsible therefor. The above-related experience, added to the experiences of the past few years, has confirmed our belief in this principle and proved conclusively that lobbying is unnecessary if we thus place all the facts—in an honest and understandable manner—in the hands of the legislators, or of those contemplating legislation which would, or might affect us.

REGULATION OF SPECIALISM

The Editor having suggested, in the November Journal (page 869), that the word—*guidance*—seemed preferable to the word—*control*—for use in the title of Dr. Waters' plan for certification of specialists, Ex-President Hagerty responded with the question—"whether *regulation* might not be better even than *guidance*, which is certainly better than *control*, for that word had, to some members, a sinister meaning". As neither of the officials named has any strong preference in the matter, it will be interesting to watch developments and note what word comes into use in the natural course of events.

The point to which we would again direct attention is—that there is nothing in this movement to *control* or *compel anybody*, as to the performance of *anything*. In fact, as we have explained on several occasions, the State Society's adoption of this procedure grew in large measure out of the necessity for doing something of this kind to prevent state legislation which would have forced our specialists into a position where the word *control would have been appropriate*, for it was the *key-word* in the Act that was, through 3 successive legislative years, presented at Trenton. The next most important reason for such action was, we believe, the need for a satisfactory response to the public's demand for some means of recognizing capable and trustworthy specialists. There has been much discussion of the problem within this society during the past 3 years, but for those who have not yet a clear understanding of the origin and purpose of this plan, let us again recommend the reading of pages 252-263 of the Journal for March 1932.

CENTENARY OF THE BRITISH MEDICAL ASSOCIATION

Some of you may remember the announcement made at the Annual Meeting in June, that your Editor had just been honored by an American Medical Association appointment as 1 of the 3 Delegates requested by the British Medical Association to represent officially the medical profession of this country, at the celebration of the B. M. A.'s 100th birthday anniversary. Through President Hagerty the State Society gave its approval to our selection and added to our honors an authorization to convey, at the same time, to our British colleagues, the felicitations of the oldest medical society in the United States; a task which we were, of course, delighted to assume.

It has been our intention to submit a report of that highly interesting event but as yet we have not found sufficient time available. Pending such opportunity, and promising an interesting and entertaining statement some day ere long, we wish now merely to say that the mission entrusted to us was fully and faith-

fully performed; that the message from the Medical Society of New Jersey was graciously received and acknowledged; and that, in consequence of our delegacy—confirmed and added to by this ancient and honorable organization—we were most cordially received, royally entertained, and honorably taken into "the bosom of the family". It was, indeed, one of the most remarkable medical affairs it has ever been our privilege to witness, and we made some observations which seem worthy of recording through this publication when opportunity affords.

SAFEGUARD YOURSELF BY INSURANCE

In the Official Transactions (Sup. Sept. Jour., 1932, p. 38-40), you will find the "Annual Reports" presented by Drs. Beling and Pinneo, showing the various types of insurance available at especially low prices to our members, and once again we remind you of the importance of taking out and maintaining such insurance policies.

The combined health and accident policy offered is a "group proposition" with many advantages over the best you can secure from other sources. It has one feature of the highest importance; i. e., that *your policy cannot be canceled because you have reached the age of 60*. Read Dr. Morrison's remarks on that point, and remember that the Editor told a similar story several years ago, of having paid premiums for 30 years only to be incontinently dropped at 60, and to find that he had no redress at law, because that type of insurance to individuals is, speaking practically, a legally protected "racket".

At the same time, consider the advisability of subscribing to the group medical defense and indemnity insurance. A dissatisfied patient can easily find grounds for a malpractice suit; and in days like these, the temptation to seek some easy money is so great that you cannot afford to take risks. Dr. Beling reports that 1886, out of our 2811, members, have safeguarded themselves, their practices and their families by joining in this group protection. See that *your* name is written there; and, *do it now*.



“Good Will to Men”

Christmas! Season of laughter and joy. Gifts and good will to all—and the opportunity to combine both by using Christmas Seals. For Christmas Seals help prevent, find, and cure tuberculosis all year round. Use them generously on all Christmas packages, gifts, cards and letters, and let your business correspondence proclaim, “Good health to all.”

THE NATIONAL, STATE AND LOCAL
TUBERCULOSIS ASSOCIATIONS
OF THE UNITED STATES

BUY CHRISTMAS SEALS

Special Article

SUSSEX PHYSICIANS HONOR OLD PRACTITIONERS

Drs. Pellett and Cole Fêted at Dinner in Hamburg

Fred H. Morrison, M.D., Reporter

Drs. J. B. Pellett, of Hamburg, and Martin Cole, of Hainesville, were honored by the Sussex County Medical Society at a dinner tendered them at Wheatsworth Inn, on Thursday night, October 20, commemorating the 60th Anniversary of the starting in practice of medicine of these 2 gentlemen. Officers of the State Medical Society were present and brief congratulatory remarks were made by Dr. Quigley, First Vice-President, of Union City; Dr. Lancelot Ely, Second Vice-President, of Somerville; Dr. J. B. Morrison, Secretary, of Newark; and from Dr. Henry O. Reik, of Atlantic City, Editor of the State Medical Journal, a message of regret that he could not be present, was received.

All members of the Sussex County Medical Society, and their wives, were present and those not more actively participating did, nevertheless, thoroughly enjoy the tributes of respect paid to Drs. Cole and Pellett.

Both Dr. Cole and Dr. Pellett recalled many interesting events of their long practice, telling of the hardships involved in getting about to see patients in the days of "old Dobbin" and roads that were often hub-deep with mud or piled high with snow; and relating the difficulties met with in performing emergency operations at lonely farm houses in the days when medical and surgical science was far behind present-day status.

The remarkable advances made in the knowledge and practice of medicine, sanitation, etc., in the past 60 years, were most ably and interestingly set forth in the speech made by Dr. J. B. Morrison. As this speech concerns matters of vital interest to the public generally, we print it herewith, with the kind permission of Dr. Morrison.

DR. MORRISON'S ADDRESS

I assure you it is a great pleasure to be present tonight and take part in honoring Drs. Cole and Pellett on this sixtieth anniversary in the practice of medicine. It is a wonderful thing to have been engaged in our profession for this length of time, especially in the present age. It is a wonderful thing to be called "Doctors of the Old School".

In his inaugural speech as President-Elect

of the American College of Surgeons, delivered in St. Louis last Saturday night, Dr. J. Bentley Squier pays the old-time family physician the following tribute:

"The passing of the old-time practitioner has been made a subject of much lamentation, and, from a sentimental angle, deservedly, for, embodying as he oftentimes did, the attributes of a friend, a priest and a physician, he held a very high personal relation to his patients and his virtues have been loudly extolled. The paucity of his scientific knowledge and attainments were offset by a breadth of character and a wealth of human understanding. These qualities will ever remain the most distinguished signs of greatness in any physician of whatever period."

To have practiced medicine during the past 60 years means to have lived through the greatest period of our art. Think of what it means to have kept abreast of all that has been accomplished in our profession since Harvey discovered the circulation of the blood and Jenner discovered the prevention of smallpox. The work of Hunter and Bright in England, of Pasteur in France, Virchow in Germany, besides the galaxy of names America has added to the annals of medicine, has revolutionized practice during this period.

The discovery of the cause, cure and prevention of yellow fever, malaria and typhoid fever, the miasmatic diseases as they were called, and which, for 100 years were supposed to have been caused by marsh emanations; the discovery of the germ causing diphtheria, its cure by antitoxin and its prevention by toxin-antitoxin; the discovery of the tubercle bacillus and all that this has led to; the decrease in infant mortality, the 20 years added to the span of human life; the decrease in mortality and morbidity of obstetric work; the foundation of asylums for the care of the insane; the conversion of these from *madhouse* to hospitals; the reform in the medical care of prisoners; the care provided by the state for epileptics and degenerates; the erection of vast sanatoriums all over the country for the care and treatment of tuberculosis patients; preventoriums for housing the children so afflicted or born with a weakened resistance to this dread disease; the vast improvement in the treatment of intestinal diseases; the discovery of the functions of the ductless glands and the developments in organotherapy; the chemistry of the blood, infusions and transfusions; the discovery of the cause of syphilis and its modern treatment; the discovery of the cause and more modern treatment of pneumonia; the new treatment for diabetes; the

discovery of the liver, spleen and pancreatic functions; the great discoveries of Lister and the introduction of modern antiseptic surgery, with the operations of appendectomy, hysterectomy, nephrectomy, gastric surgery, and the improvements, slight though they may have been in the treatment of cancer; the marvelous revelations of the microscope and x-rays, the use of radium and a host of other accomplishments in medicine and surgery which I could continue to enumerate until sunrise tomorrow morning.

Paving the streets, the establishment of sewerage systems, the disposal of garbage; the protection of our water supplies; the great



MARTIN COLE

public health movement by the Federal Government; the work of local and state Boards of Health; the growing efforts and accomplishments of our Welfare Associations; the establishment of our statistical records which have meant so much in the control of epidemics; the work of our hospitals and clinics; group medicine and the accomplishments of organized medicine.

In 1854, when our guests of honor, the pride of their parents, were beginning to toddle to school, a committee of our State Society urged the need of more intelligent enlightened legislation in reference to health laws and the erection, supervision and ventilation of school houses. The report said in part: "It is scarcely necessary to mention to

this Medical Society the evils of overcrowding a great number of children in schools that are too small and too poorly ventilated. Besides the usual deterioration of air by the mixture of non-respirable expirations and gases, diseases are propagated which, under the influence of better ventilation, would be harmless. The size of the school room, the heating and ventilation should be regulated by positive enactment." This was the forerunner of our State Sanitary Commission, our State Board of Health and the laws regulating the construction of public schools.

In 1872 our profession first called the attention of the Legislature to the probable spread of contagion by water and milk, and urged the absolute exclusion from school of all children from houses where scarlet fever, diphtheria, measles and whooping-cough were known to exist. It was also urged that such premises were to be placarded. Legislative enactment followed and the children of the state were protected.

Our honored guests have lived to see and to take part in demonstrating the high place the Medical Society has always held in constructive advancement of all public health matters. They have seen that New Jersey was the second state to control the disposal of sewerage; that we were one of the first states to adopt local and state boards of health; the first state to adopt legislation for the periodic examination of school children; the first state to adopt standards for certified milk; the first state to secure from the Federal Government consent to send specimens of sputum through mails for examination; the first state to standardize hospitals; and the first state to provide for the extermination of mosquitoes. This is, indeed, an enviable record of accomplishments of which our honored guests, along with the rest of us, are proud.

And then, apart from medicine, but allied to it by their great assistance, our guests have witnessed the inventions which crowd around the railroads, the great steamboat corporations, the telegraph, the telephone, the radio, automobiles and flying machines, and the great improvement in roads and means of transportation.

What a period to have lived through—what a marvelous tale, worthy of Aladdin's Lamp—the 80 years of their sojourn in life has spun!

And now, when the snows of winter are falling on their heads and the autumn leaves of life are coloring the landscape, what a wealth of reminiscences crowd into their active brains as they sit by the fireside and contemplate their life's accomplishments.

Perhaps never again in the history of medi-

cine will men have lived to see such great advancements. And certainly never again in medicine will physicians as a class, or as individuals, mean so much to humanity as these—"Doctors of the Old School".

We bow before them in reverence. Idols of a bygone age, apostles of an art acquired, not in the halls of modern colleges such as we have been privileged to attend; not in the hospitals, clinics and laboratories; not in the 8 years of preparation which it now takes to turn out a physician; not from the costly medical libraries at our command; but gleaned from a vast field of experience, acquired with the utmost acumen.

The trained finger, the trained eye, the



J. B. PELLETT

trained perception and intuition, profound deliberations and deductions have given these men a value to the public not acquired in our day and generation.

And, so, we leave them in their 80 years, to their reminiscences, assuring them of our profound homage, devotion and admiration. And we thank them from the bottom of our grateful hearts for what they have meant to medicine and the profession we love.

Medical Ethics

ADVERTISING

John Hammond Bradshaw, M.D., F.A.C.S.,
Orange, N. J.

"Solicitation of patients by physicians as individuals, or collectively in groups by whatsoever name these may be called, or by institutions or organizations, whether by circulars or advertisements, or by personal communications, is unprofessional. This does not pro-

hibit ethical institutions from legitimate advertisement of location, physical surroundings and special class—if any—of patients accommodated. It is equally unprofessional to procure patients by indirection through solicitors or agents of any kind, or by indirect advertisement, or by furnishing or inspiring newspaper or magazine comments concerning cases in which the physician has been or is concerned. All other like self-laudations defy the traditions and lower the tone of any profession and so are intolerable. The most effective and worthy advertisement possible, even for a young physician, and especially with his brother physicians, is the establishment of a well-merited reputation for professional ability and fidelity. This cannot be forced but must be the outcome of character and conduct. The publication or circulation of ordinary simple business cards, being a matter of personal taste or local custom and sometimes of convenience, is not *per se* improper. As implied, it is unprofessional to disregard local customs and offend recognized ideals in publishing or circulating such cards. It is unprofessional to promise radical cures; to boast of cures and secret methods of treatment or remedies; to exhibit certificates of skill or of success in the treatment of diseases; or to employ methods to gain the attention of the public for the purpose of obtaining patients."—(Chap. II, Sec. 4, Principles of Medical Ethics, A. M. A.)

Although we should be familiar with the little booklet of medical ethics of the A. M. A., it can safely be asserted that not every member of the Medical Society of New Jersey has even read it. Medical advertisement has always been a sore point with the profession and Dr. Shirley W. Wynne, Health Commissioner of New York City, caused a small tempest in a tea-pot not long ago by openly stating that a strict code of medical ethics works an actual injustice to the poor man. "Able doctors do not seek publicity, do not reveal their fees. How can the poor man, needing treatment, having a certain amount to spend, know where to turn?" * * * In the United States the only thing people buy without knowing its value is medical attention."

Of course this seems to be an argument for some kind of advertising by the medical profession. Of course we know that *established* doctors need no such advertisement. Of course we know that physicians on the staff of a general hospital have this fact as their advertisement. We also know that it is the good doctor or good surgeon (not limiting the meaning of the word to morality) that is his own walking, speaking and acting advertisement.

If one reads the A. M. A. article carefully, he will probably come to the conclusion that it is well written and that he can subscribe to most that is therein set down.

Esthetics

ARTISTIC POSTER ADVERTISING

Several years ago, while on vacation, idling along the Boulevard des Capucines in Paris and observing the always attractive shop window displays, our attention was drawn to something new in the way of advertising; a series of beautifully colored posters in the window of the Paris-Orleans R. R. offices, depicting selected bits of scenery along the route of the railroad and autobus trip from Paris to Biarritz and thence along the crest of the Pyrenean mountain range constituting the boundary line between France and Spain from the Atlantic Ocean to the Mediterranean. That advertising device may have been in use for a long period of time but the incident referred to was our first recognition thereof, and those posters sold us tickets for that trip with stop-over privileges for each of the places pictured.

During the past 3 years poster advertising as related to travel has increased tremendously, and during the past year its character has improved marvelously—has, indeed, become so artistic that people are purchasing the posters for use in home decoration. One of the English Railways—the London and South-Western—which serves the districts of Devonshire and Cornwall, issued last year some handsome, colored posters, 3 ft. square: King Arthur and his Knights in regal costumes, for Devon; the Viking King and Courtiers, for Cornwall. We brought home one of the Devon posters, trimmed off the marginal advertisement, and it looked very well on this office wall. This year, the London and North-Eastern Railway utilized posters of 66 different subjects, the originals of which were drawn and painted by artists of the highest repute—some of them members of the Royal Academy. Chief among these posters are the ones representing the Cathedrals of York, Lincoln, and Ely, though pictures of the Flying Scotsman (most famous train of that road) and views of Cambridge, Hampton Court and other well-known places, have served their purpose very well and are quite popular with the public, if we may judge by their saleability; the Railway Company having placed them on sale in 2 sizes, 25x40 in. and 40x50 in., at 2½ shillings each for the

smaller and 5 shillings each for the larger size; and, a reduction of 40% if to be used for school purposes.

This Spring and Summer, 1932, Steamship and Railroad Companies from all over the world have engaged in a contest of expensive advertising by posters; perhaps no more expensive than some other forms of advertising, but certainly more pleasing to the public, and we hope more effective as income producers. The Cunard Co. put out a beautiful picture of the "Mauretania at Night", in some World Cruise Harbor, on paper as heavy as canvas and pretty enough to hang in a gallery.

In Switzerland, with all means of travel under government ownership, and where scenery is the principal commodity offered for sale, the posters now issued, and in the main obtainable for the asking, are among the best pictures to be had—including, for instance, the "View of the Jungfrau from Mürren", and "Winter at Davos".

POSTERS WORKING FOR PEACE

Recently, we learned from the Literary Digest of August 27, posters have come into a new field of usefulness and we can readily understand that they may be very effectively employed to spread propaganda and here we will let the Digest speak of an esthetic form of advertising, by reproducing a portion of that item just as it appeared originally.

"She screamed her terror from the billboards. With deadly precision, an air bomb was dropping upon the woman, who convulsively pressed her baby to her breast. In the distance a squadron of bombing planes was flying away. All Paris stopped and looked, shuddered, and asked questions.

In a short time, no less than 20,000 of these posters were attracting attention throughout France. Representatives of the Quai d'Orsay were dispatched to find out who had pasted these shocking disarmament posters on the bill-boards of Paris—who was responsible for their dramatic, dynamic message. These officials found out that the posters were the first efforts of a newly created organization for peace propaganda by graphic means.

The story of this organization is told by Mr. Louis Cheronet in *Arts et Metiers Graphiques* (Paris). Jean Carlu, an advertising artist, decided that the *ideals of disarmament and of world peace would always remain sterile and ineffective unless graphically dramatized for the masses*. The printed word, he was convinced, was not enough. The reality of war, the horror of mutilation, the physical torture of wounds, must all be graphically

shown, brought close to the eyes of the man, the woman, the child in the street.

This twentieth century of ours, this passionate lover of peace insisted, is a century of the masses. The necessity of disarmament must be demonstrated to these crowds in the simplest and most concrete form. For it was thus that the great simple truths of Christianity were sown in the Middle Ages. As interpreted by Mr. Cheronnet in *Arts et Metiers Graphiques*:

'It seems right to trace a parallel between the Middle Ages, when religious faith was spread, maintained, and strengthened by pictorial propaganda, and our own era, in which we witness the reign of the pictorial image everywhere—on the bill-boards, on the screen, in news-papers, aiming its appeal always to the masses, and becoming thus the instrument of powerful suggestion, from which no one is immune—an instrument with the power to realize the best or the worst, and the meaning of which can be understood by all.

The magnificent outburst of painting and sculpture, which decorated the cathedrals and the churches from the twelfth to the sixteenth centuries, is not so much the reflection of an intense faith as it is, if you wish, a massive and multiple manifestation of the advertising of the divine concept and religious beliefs.

Fervent, inspired, sincere advertising, be it understood—but advertising just the same, which did not overlook any means to popularize the images of its faith.'

With this noble and inspiring example before him, Jean Carlu and his group, experts all in the crafts of advertising art, founded the 'Office of Graphic Propaganda for Peace'. Their aim would be to advertise peace—to 'sell' the idea of disarmament—exactly as they might try to sell any commercial product. They would aim, they assured themselves, to convince the discordant populations of Europe that peace was a basic necessity of their lives. Of this unprecedented effort, Mr. Cheronnet writes:

'Analyzing such a program, so vast and so generously ambitious in its simplicity, one can see that only a reasonable application, based on profound and experienced knowledge of the psychologic effects of the advertising art, can effect the desired end.

Only a wide-spread campaign, a thousand voices tirelessly repeating everywhere the word Peace and its images, could ever succeed in creating a state of natural receptivity from which might sprout reasonableness and renunciation of self-seeking.'"

Collateral Reading

A WANDERER IN BOOKLAND

During the past Summer, the memoirs of Mr. E. V. Lucas, the well-known author of a series of travel books describing the art treasures of the world and telling where and how to see and interpret the great masterpieces, were published in London under the title of "Reading, Writing and Remembering", and we present here an entertaining review which appeared in the London Times of September 23.

The sub-title of Mr. E. V. Lucas' book of memoirs, "A Literary Record", indicates the limitations of its purpose. He sets out to tell us about the books he has written, the books he has read, and the men of letters he has known. That he has a good many other things he could tell us about his life we may assume—and the assumption leaves us hoping. Meanwhile what he has to give now is rich enough; for what he has read and written is as varied as it is copious, and the interesting authors he has met are a crowd.

After a little chat about his nursery reading, Mr. Lucas takes us into a Brighton now largely pulled down where you could see such eminent and flamboyant Victorians as Edmund Yates, pacing the King's Road with caution on his stately charger; William Black, ranging red-faced between Paston Place and the Aquarium; and a "demigod" in "a grey hat with a black band, a white waistcoat and sponge-bag trousers, like a perpetual and incorrigible wedding guest", who was G. A. Sala, and also, it appears, "the man of letters whom I had set up as my model"—though you would not now think it from Mr. Lucas' style. From Brighton journalism the way went by a roundabout and unusual path to London University; and the figure of W. P. Ker, Professor of English Literature, rises in a Jove-like aureole.

He lived alone in his great Gower Street house, and when you dined with him there . . . you began downstairs with one bottle of Burgundy on the table and another in the fireplace, and finished in a room entirely filled with books—books on the shelves, books on the tables, and more on the floor—through which you picked your way to your armchair. The room was lighted only by 2 candles, by the light of whose tiny flames W. P. did most of his reading. If during conversation a book were needed he would lift 1 of the candles, bearing it rather high, and, stooping, with lowered head, advance, peering through his glasses, to the exact spot in this chaos where it was to be found. Those candlesticks are now mine.

Mr. Lucas carried a style chastened of its

Salan arabesques by W. P. Ker's keen pruning-knife into the service of the old Globe, and then into the congenial study of Charles Lamb; and it was as Lamb's biographer and interpreter that he paid a visit to the Pines to see some Elian treasures possessed by Swinburne. He did not enjoy his evening. At dinner:

When I say that the poet made his entrance, I use the words carefully, for there was ceremonial about the action. He can be said to have moved both impressively and absurdly, in a posture so erect that it passed beyond the perpendicular and inclined a little backwards. What added the ultimate touch of unexpectedness was the fact that in his hand was a bottle of either beer or stout—I forget which. Grasping this firmly in front of him, the author of "Atlanta in Calydon" advanced to his chair, on the right of the head of the table, and sat down. Of me he took no notice whatever.

And his friend Theodore Watts-Dunton took too much, talking so incessantly that the visitor was practically cut off from the poet. Yet:

That Swinburne did not wholly disapprove of me I gathered from the fact that when, not long after, his novel "Love's Cross Currents" was published, he sent me a copy with an autograph inscription, and, 2 or 3 days later, another.

Mr. Lucas goes on his easy, circuitous, and uniformly charming way, and presently we are in the company of Meredith, handsome, with a touch of dandyism, and aristocratic.

His conversation was very like him. I remember a phrase of his about Amsterdam. I had just come back from Holland and was telling him about those old canal-streets, the Keizersgracht and the Heerengracht, with their dark facades reflected in the water. "Ah, yes!" he said, "the very plebs of the Venetian idea."

One of the most attractive chapters in the book is that devoted to its author's experience as a member of the staff of Punch, with reminiscences of his famous colleagues among the older and the younger generation. When he first appeared at the famous "mahogany tree", Burnand was in the editorial chair, a better humorist, Mr. Lucas judges, than he was an editor.

The statement may have a paradoxical sound, but if "Happy Thoughts" had been taken more seriously by its author it might, without losing any of its fun, be one of the great psychologic works of the world. Burnand did not know how good his material was; he played with it and dropped it too soon.

We are not sure that so perfect an expression of unforced humor would have been improved by a dose of psychoanalysis, any more

than Mr. Lucas' own gay pages would be by the intrusion of that pessimism of which he speaks as an element in his philosophy. At least, it casts no shadow across these memoirs.

In Lighter Vein

His Dark Secret

"Have you and your wife ever had any difference of opinion?"

"Yes, but she didn't know it."—Boston Transcript.

One Crying in the Wilderness

"Our economics prof talks to himself. Does yours?"

"Yes, but he doesn't realize it—he thinks we're listening."—Juggler.

History of a Panic

"Only cheese for lunch?"

"Yes, the outlets caught fire and it spread to the apple tart, so I had to take the soup to put it out."—Vart Hem (Stockholm).

Fido's Perquisites

Customer—"Your dog seems very fond of watching you cut hair."

Barber—"It ain't that; sometimes I snip off a bit of a customer's ear."—Princeton Tiger.

Blind Eye to the Telescope

Conductor—"Can't you see the sign 'No Smoking?'"

Sailor—"Sure, mate, that's plain enough. But there are so many dippy signs here. Looka there, one says, 'Wear Nemo Corsets.' So I ain't paying attention to any of them."—B. and M. Employees' Magazine.

Giving a Poet the Pip

I saw a sunbeam kiss a flower and it looked so sweet to me,

I sought a sip of nectar from this blossom by the sea.

But instead of a nip of nectar what I got, By Hector,

Was the hot end of a bee.

—Florida Times-Union.

Standing Pat

IF

If I retired, say, at ten,
And never mingled in the riot,
Or the sins of other men,
And watched my diet;

If I lived on better terms
With virtue, kept my moral axes
Level, worried over germs
And prophylaxis;

I would be a better man,
A kinder husband, finer father—
Yet I never will or can,
So why bother?

—Wilfred J. Funk in the New York American.

Lighthouse Observations

COD-LIVER OIL AND YEAST FOR HAY-FEVER

In the Literary Digest of Aug. 13, 1932, we discovered an abstract from Industrial and Engineering Chemistry relating, under the title used above, some experiments by Dr. Kitsuta, at the Ohio Agricultural Station, in the line of prevention or treatment of his own hay-fever tendencies. Reprinting his remarks here—too late for use in 1932—we offer the information as a bit of preparedness for the next season. Kitsuta was reported to have written as follows:

"The idea first came to me from studying the findings of various investigators who have claimed that the vitamin B complex is effective against sensitivity to foreign proteins, that yeast might be helpful in my case. (Dr. Kitsuta has been an annual sufferer from hay-fever for many years).

For several years, I consumed large quantities without benefit during the usual hay-fever seasons. In spite of this lack of success, I persisted in this treatment, but this year modified it by taking cod-liver oil in addition.

The oil had been assayed, and contained 500 and 112 units per gram of vitamins A and D, respectively. The dose taken at the start was 4 teaspoonfuls 3 times daily. The first dose was followed by noticeable benefit within a few hours, and after taking the oil at the rate mentioned with yeast for 2 days all symptoms had disappeared. When I discontinued or reduced the dosage, the symptoms reappeared after about 8 hours, but disappeared on resuming former rate of dosage.

I have since concluded that the beneficial results are due entirely to something in cod-liver oil, although I think it advisable to use yeast also, since, in my feeding experiments with rats, I have observed that a relatively large amount of yeast is effective in overcoming some ill-effects upon general health, appetite, and rate of growth apparently attributed to liberal doses of cod-liver oil without correspondingly large doses of yeast. It seems to me quite probable that something like a balanced diet of vitamins is as necessary as a balanced intake of other food.

In administering cod-liver oil for the cure of hay-fever already developed, I think it advisable to take about 4 teaspoonfuls 3 times daily, in addition to 1 cake of yeast. It seems that the effective period of cod-liver oil for the hay-fever lasts about 8 hr., and symptoms reappear if no more cod-liver oil is taken. Possibly, when taken with the idea of prevention, before symptoms have developed, or for another individual, a lighter dosage might be effective.

As to the mechanism of action of cod-liver oil in amelioration of hay-fever symptoms, I have no evidence to offer. It may be that one or more of the vitamins can combine with foreign proteins directly and form a non-irritating compound, or promote the formation of proteolytic enzymes in the blood.

But it seems that in addition to the antirachitic, growth-promoting, and infection-resisting values of the cod-liver oil, there may be still another valuable function—increase of resistance against the effects of foreign proteins. The required dose of cod-liver oil for the last, however, seems tre-

mendously larger in comparison with the preceding ones.

This discovery may be of great importance to those who suffer from hay-fever, asthma, etc., or who have idiosyncrasies against certain foods."

A NERVOUS WORLD

One out of every 4 people in factories and offices is afflicted with *nerves*, a word often used to describe a condition that is little understood.

Investigations made by Great Britain's Industrial Health Research Board show that the word *nerves* must be used to explain many human factors which hinder industrial efficiency.

The British investigators ran up against the problem of *nervousness* when they looked into the matter of both trivial and serious accidents in industry. Those who are emotionally unstable have more accidents, and there is hope that they may be picked out by simple tests, such as the psychogalvanic reflex or a dotting-machine test. Since accident-prone people are dangerous both to themselves and to those around them, it is important to recognize *nervous* people before they have accidents.

The investigations in England have progressed so far that Dr. Major Greenwood, who tells of them in *Human Biology*, holds out hope that combined use of psychologic tests and examinations by specially trained physicians will prove practical.

Workers in offices where nervous tension is high will be interested in the finding that the *nerves of employers* are more important to efficient work than the *nerves of the employees*.

As to the cause of our nervous world today, Dr. Greenwood will not agree with those who argue that we are living at too fast a pace. In this age of the world, according to Greenwood, *nerves* are more important than in the age of William the Conqueror; not because the pace of life is faster than in 1066, but for the precisely opposite reason. It is so much slower. Life in old England may have been merrier, but it was certainly shorter than it is now, and the struggle for bare existence was keener. Hardly any people in this country, speaking statistically, are in imminent peril of actual starvation. Millions of people now have leisure for reflection. They may not be acutely hungry they are not in imminent peril of death, but they are insecure.

Public Relations

YE "OLD-TIME" FAMILY DOCTOR

(From the magazine—Time—Sept. 5, 1932.)

A laughing, whooping crowd of plain people craned necks at a sleepy horse in Mulvane, Kansas, last week. It was "Annual Old Settlers Day", and old Dr. Solomon Thomas Shelly was giving a special show. The week before he had sent out a blanket invitation to more than 4000 persons who got "their start in life" with his help. Some 10,000 people from Kansas, Oklahoma, Missouri and farther states came to Mulvane (pop. 1200) to see the fun.

Dr. Shelly, 76 years old, swung on to his horse, fixed a shiny old-time stove-pipe hat on his head, put a perky cigar in his mouth, and posed for a moment. Except for frock coat and saddle medicine bags, that was the way he rode into Mulvane 52 years ago, a year after its founding. Laughed he last week: "I had 45 cents in my pocket then." Now, he has a big house in Mulvane, a wife and 4 children (the son is Dr. Hargus Gerard Shelly, 51, of Wichita), and a practice which still requires night calls.

"Come on," waved mounted Dr. Shelly, and the crowd paraded after him through all Mulvane, right into his big front yard. There was a "birth register" for the proper people to sign. Albert Norden, 52, nearby farmer, went up and signed his name. He was Dr. Shelly's second baby. The first was a girl whose family moved away years ago. Dr. Shelly cannot recall her name.

Mrs. Earl Maple, 51, went up; and her son Otis, 27; and Otis' son who is 7 months. Herbert Butterfield came from Jacksonville, Fla. Youngest visitors were Mr. and Mrs. Bert Roby's twins, a boy and a girl, born 3 weeks before. More than 500 of Dr. Shelly's babies appeared. Marveled he: "Think of it! More than 4000 in 52 years, and more than 1/10 of them here today. There'll be more before I quit practicing."

GERMANY NOT WITHOUT ITS FULL SHARE OF MEDICAL QUACKS

(Special Correspondent's report from Berlin to the New York Times, Sept. 3, 1932; an item showing that ours is not the only country whose people fall for the wiles of medical fakers.)

An official survey has counted 13,000 healers—"quacks", says the report—in Germany practicing methods not countenanced by the medical schools. Their actual number is thought to be greater since, as the report says, "no census can catch all quacks". But even on the basis of 13,000, the non-orthodox practitioners show an increase of 4.3% over last year's count, whereas the corresponding increase in the regular medical profession amounts to not quite .03%.

Against the 13,000 irregulars there are about 45,000 regular physicians in the Reich as a whole. The ratio between them is much more favorable to the irregulars in certain sections. Thus, in the State of Saxony there are listed 3550 physicians and 1750 quacks, and in Hamburg the latter muster 1119 against 1525 ethical practitioners.

The German medical profession is badly overcrowded, and measures for restricting admittance to medical schools are under discussion.

THE MARGARET HAGUE MATERNITY HOSPITAL

(An editorial in the Jersey City Observer, Oct. 18, 1932.)

In the first year of operation of the Margaret Hague Maternity Hospital, in Jersey City, 4000 newcomers were brought into the world there. This record well demonstrates the important place that this unsurpassed institution fills in the community.

Envisaging as it does the greatest consideration

for womanhood destined to descend into the valley in order that the race may be perpetuated, the Maternity Hospital is an enduring monument to Mayor Hague, who conceived it as a community service.

Sharing in this credit is Congresswoman Mary T. Norton, who, while a member of the Board of Freeholders, had a large part in bringing the institution into being. Hudson County may well take pride in the fact that nowhere can there be found better facilities for meeting this momentous period in the life of the expectant mother.

NEW ANGLE ON HOSPITALIZATION

(From the Observer, Jersey City, Oct. 17, 1932.)

The suggestion put forward at the New York Hospital Conference that 3 weeks of hospital care a year be provided for the employed public at the rate of 85 cents a month per person, is one that will unquestionably arouse interest among certain physicians in Jersey City who are finding fault with Mayor Hague because of the service that is rendered by his famous Medical Center.

Jersey City physicians who are not affiliated with the Medical Center are complaining that this institution is making serious inroads on their incomes. We have no quarrel with these physicians. They have a right to demand whatever they think their services are worth. But, on the other hand, there must be considered the fact that in these times of depression many people are unable to meet charges which, so far as we are able to observe, are just where they were in times of prosperity; and this, it may be said in passing, is the case with dentists as well.

In the circumstances, those requiring professional services of this sort and being without means to meet the charges now exacted, are forced to go to such places as the Medical Center. This applies particularly to the "white collar" class. In this, the Jersey City physicians in question see a threat of what they term "state medicine"—the Government supplying medical treatment, including surgical operations, just as it supplies other community needs, by levying the cost on the taxpayers at large.

That there is possibly a definite trend in this direction is recognized in other places as well. The New York Hospital Conference probably had this in mind when it considered the hospitalization plan referred to above. It was argued that some such plan will have to be adopted if the private hospitals are to be continued. It is noteworthy that the plan was projected by the Essex County, New Jersey, Hospital Council.

Under the terms of the plan, persons between the ages of 15 and 65 who are employed are eligible for participation. From the salary of each person 85 cents would be deducted by employers. The money would be turned over to the hospital group and from this fund each hospital could draw for the expense of its service.

Of course, this would leave the private practitioner still facing the same problem—that of assuring himself an income commensurate with the effort and cost expended in the acquirement of a diploma and the license to practice. On the other side of the picture, we have that portion of the public unable to meet the scale of rates. And this group is likely to increase in numbers so long as doctors' fees remain at the peak.

School Health Department

PROGRAM FOR SCHOOL PHYSICIANS

Allen G. Ireland, M.D.,

Director of Physical and Health Education,
State Department of Public Instruction,
Trenton, N. J.

The title of this article is also the title of a bulletin recently published by the New Jersey State Department of Public Instruction. Copies have been distributed to school administrators and to all school physicians whose names we have. Since our list has not been revised for 2 years, there will be some who have not received their copies. If you are one, please notify the writer, at 1208 Trenton Trust Building, Trenton, or in care of the State Department of Public Instruction; and please give name, post office address, and the school districts where you are employed.

Although the scope and purpose of the above program is clearly stated in the opening paragraphs, it seems fitting to reiterate certain facts. The program represents an ideal. This should be clearly understood at the outset. It is a compilation of activities taken from the work of many school physicians. Thus, it serves at once as a source of information concerning what is being done and as a guide to program development. It permits evaluation in terms of a standard. It suggests what is worth doing. But no one expects any one physician immediately to adopt every suggestion. Select, instead, what can be done within the available time. At the same time, eliminate other things not so valuable and which obviously are traditional activities with little to justify them.

The puzzling question of salary is well known to the writer. But there is no way by which that matter can be immediately settled to the satisfaction of all. Probably the surest and quickest way is to demonstrate the extent and the worth of a good program. It is doubtful if boards of education can sense those qualities without being shown. The program, it is hoped, will serve to indicate what is regarded as effective and, in turn, justify an adequate compensation. As in any work, these factors, effectiveness and compensation, are parallels, each influenced by the other.

School physicians desiring the use of an audiometer should communicate with the nearest State Child Hygiene Supervisor, or with Child Hygiene Bureau at the State Capitol. The Bureau has a machine available for rental.

Occasionally, we hear of a school nurse who is not permitted to be present at the school physician's examination of pupils, and one wonders how such a split in the health staff could ever have occurred. Does the physician carry on the follow-up, himself? Or, are these the instances cited by parents who complain to this office that the health program ceases when the defects are recorded on a card? Fortunately, such complaints are fewer than several years ago, probably because the fallacy(?) of the examination without follow-up was so evident.

Nothing can be done for the child until the gap between the home and the school is effectively bridged, and it is precisely that which has brought the nurse into deserved prominence. It would be interesting to know how many thousands of children have been taken to the family physician or the specialist because of the nurse's home visiting.

The "health record" card of the Bureau of Child Hygiene is being revised jointly by that Bureau and the Division of Physical and Health Education of the State Department of Public Instruction.

The head school physician at Schenectady, New York, is a full-time officer with the rank of Assistant Superintendent of Schools.

People who go promptly to the physician when in need or who appear periodically for a check-up, are those who, as children, learned to know the physician as a friend. All our school children of today are, or should be, learning that lesson. Thus, one objective of the school health program calls for something beyond the mere search for defects.

State Health Department

OUR DIMINISHING DEATH RATE

J. Lynn Mahaffey, M.D.,

Director State Department of Health,
Trenton, N. J.

New Jersey's steadily decreasing death rate from tuberculosis is an encouraging sign. It is no longer "The King of the Men of Death". In 1931, the death rate was 65.1 per 100,000; for 1930, it was 69.0; for 1929, it was 77.5. Tuberculosis, in all its forms, took 2702 lives in 1931.

The earlier the diagnosis, the greater the chance of recovery. The public is generally recognizing that the disease is not hereditary, and that reduction in mortality is chiefly due to the building up of necessary resistance. The State Department of Health examines specimens of sputum as an aid in diagnosis. However, a negative sputum examination, particularly in an early stage of the disease, should not be considered as disproving the presence of tuberculosis.

Every case of tuberculosis should be reported promptly after diagnosis to the local board of health. However, as there are reported each year only 2 cases of tuberculosis to each death recorded, it appears this legal requirement is not completely followed.

Preventorium treatment is among the more advanced practices of the day, and should be encouraged; in addition to the accepted old weapons, which are absolutely necessary.

It has been suggested that the general decline in death rate is possibly due to an increased resistance through heredity. Enlightenment of the public on health matters has accomplished much in sending the rates downward. The gospel of the open window, nourishing food, personal as well as civic hygiene, anti-spitting and anti-coughing campaigns, have been large contributing factors. The modernization of industry, improved working conditions, shorter hours, passing of the sweat shop, better living standards and opportunities for healthful recreation, all have contributed to a raise in human resistance.

The medical profession has moved forward. The practitioner of today has received a training in tuberculosis treatment which until recently was restricted to the specialist.

Application of the accepted methods of treatment in a sanatorium is preferable to home treatment, no matter how well conducted the home may be. Sanatorium treatment gives the patient a better chance for an arrest or cure of his disease.

Carelessness on the part of patients is the most damaging means of spread of the disease. Here is where the sanatorium does its best work; the increased number of arrested cases and cured patients discharged yearly proving that. More preventoriums are needed—call them rest camps, summer camps, or by any other name—to build up resistance.

Communications

SOCIAL INSURANCE

(Twelfth, and last, in a series of communications dealing with health insurance, continued from the November Journal.)

Edward H. Ochsner, M.D.,
Chicago, Illinois.

The purpose of this series of articles on Social Insurance has been to arouse the rank and file of the medical and dental professions and, through them if possible, the general public, to an impending danger; and to dispel a number of quite generally held false opinions.

The first of these is the very commonly held belief that the moment a professional man assumes a title and a government position he knows more and becomes more efficient than he ever was before; while the contrary is more often the fact because of the enervating effect of *red-tape* and *paper-work*.

The second common error is that by some magic *Compulsory Health Insurance* is going to escape the favoritism, nepotism, graft and, in fact, all of the evils of politics. This is a delusion with which reformers and the intelligentsia in general are commonly afflicted. The practical man of affairs, and particularly the seasoned politician, does not fall into this error. Some time ago, during a heart to heart conference, a practical politician said what he really felt and knew to be true. He said, in substance, that we must remember that: "We have government by politics, and you and I or all of us, with 100,000 others, cannot change this situation. I do not care whether you remove the control from the city to the state or to the federal government, it will still be controlled by politics."

The third common error, again held particularly by the reformers and intelligentsia, is that statisticians and economists can solve this problem unaided. Desirable, valuable and even necessary to a complete understanding of the problem as a study by competent economists is, there is one very important fact which many who have made a study of the problem do not seem to be able to realize—namely, that in a matter where personal relation is such an important element as in the practice of medicine and dentistry, the ordinary formulas employed by economists do not and cannot apply. Personal relations cannot be measured by any mathematical formula devised. It is too elusive a factor to be measured by monetary or any other standards, and yet of all factors it is by long odds the most important. Only the individual who has had an extensive experience in the practice of medicine or dentistry or the one who has had a long and serious illness seems to be able to evaluate properly this phase of the problem. Then again, the lack of medical knowl-

edge among economists makes it impossible for them to appraise the difference between the personal individual care of the patient by the private physician and the more or less impersonal mechanical care of the panel or *Krankenkasse* physician nor are they so situated as to have access to individual patients and even if they had, they lack the training to know which is giving the better treatment. From the foregoing it must be evident that this type of study and investigation has its limitations in cases where the personal element enters intimately with a social or economic problem, and if too much dependence is put upon it wrong conclusions are bound to be reached; or, to restate this point a little more concisely, let us say that statistics have their value and their limitations. The more personal the matters under investigation the less their value and the greater their limitations. One writer has expressed this idea very well in the following words: "There is real danger that the economist lost in the abundance of his researches finally overlooks the plain and easy road that lies directly before him."

Probably the most common error is the belief that Social Insurance will abolish poverty. To the contrary, it is at best a palliative and like all palliatives, if employed for any considerable period of time, always leaves conditions worse than when first employed.

Another common error quite generally made by the more sensitive and emotional is to believe that the receiving of charity is of all things possible the most degrading. Serious as the accepting of charity is to the character of the intelligent and sensitive, there are many other things even worse and one of these is the quite general practice of *malingering* which *Compulsory Health Insurance* and the *Dole encourage and foster* among the workers of the nation. There is this fundamental and very important difference between accepting charity and a health insurance stipend—the former is still considered somewhat of a disgrace, while to get the latter, even through subterfuge, is considered highly respectable and clever.

There are 2 questions that the Compulsory Health Insurance proponents have never answered, in spite of the fact that they have offered innumerable "alibis that do not alibi", and endless explanations that do not explain. First, why, if Compulsory Health Insurance improves the health of a nation, as claimed by its proponents, is the death rate no lower in those countries that enjoy this "great blessing" than in those countries not so blessed? And, secondly, why, shortly after and since the introduction of Compulsory Health Insurance, have the number of days lost by the workers per annum steadily increased? The answer to the first question is that it does not improve the general health of the people, and the answer to the second is that among a very large percentage of the working population it substitutes for THE WILL TO GET WELL AND THE WILL TO WORK, THE WILL TO STAY SICK AND THE WILL TO LOAF.

Personally, I am quite satisfied that Germany and England should make their experiments in Social Insurance, and Russia her experiment in State Medicine, but I am happy that these experiments are being made 3000-4000 miles, respectively from our shores. I am firmly convinced that if we can stave off these schemes for another 10 years we will be spared them, because they will prove so harmful to medical practice and medical progress and so destructive to national character

that we will escape their blight. Time will demonstrate that they are fundamentally wrong, a backward step in civilization.

Human progress in most lines has always been very largely the result of unhampered personal endeavor, and rarely if ever the result of governmental action primarily. Will we never be able to learn from experience and must there always be recurrent periods of halt and even retrogression in human progress?

American medicine and dentistry stand today at the threshold of their greatest opportunities and beside the abyss of their greatest dangers; the former because of their marvelous advances in the recent past; the latter because they are being pestered and annoyed by a small but vociferous group of misinformed, uninformed, unwise, and in a few instances self-seeking, selfish, self-appointed lay advisers. There are troubled times for these allied professions; the men who stand firm now will deserve the gratitude of future generations of men and women.

THE NURSING FEE PLAN OF THE ORANGE MEMORIAL HOSPITAL

(Having noticed in a report from one of our County Societies that "the nursing-fee plan of Orange Memorial Hospital" was up for discussion, we wrote to Dr. Bradshaw for information concerning that plan, and this letter from Miss Margaret Ashmun, R.N., Director of Nursing, in that institution is the answer; and it appears to be of sufficient importance to justify broadcasting.—Ed.)

My dear Dr. Reik: Your letter to Dr. Bradshaw has been referred to me for answer.

Early in July the nurses of the Alumnae Associations of the Hospitals in Essex County had a meeting and agreed that it was advisable to reduce prices, and at the same time advantageous to reduce hours. A sliding scale was adopted as follows: 8 hours \$5; 10 hours \$6; 12 and 24 hour duty remaining the same, \$7 and \$8 respectively.

Here at the Orange Memorial Hospital it seemed opportune to put the 8-hour day into effect, for all private duty nurses employed as the so-called "special" nurse. We felt that the sliding scale in the Hospital would cause various complications in schedule and would defeat one of the purposes of the 8-hour scale, so we have only the 8-hour day; the hours being 7 a. m. to 3 p. m.; 3 p. m. to 11 p. m.; and, 11 p. m. to 7 a. m.

Before any steps were taken, the Medical Staff members were approached and found to be unanimously in favor of this plan, and the Board of Governors agreed to back the change for a trial period of 6 months. The scheme went into effect on July 20. Any private patient may have none, 1, 2 or 3 nurses, as required or desired. We have noticed in the past 2 years a great reduction in the number of special nurses employed by patients in the Hospital and we felt that not only would the patient have a greater choice as to her nursing service, but that also there was a chance of her keeping her nurses longer at the reduced rate, or engaging even 2 nurses where before she had only 1; which would thereby give employment to more nurses.

The majority of our patients are under surgical treatment and we find that patients are quite apt to want special nurses for the first 24 or 48 hours after an operation; after which time the night nurse, from 11 p. m. to 7 a. m., is frequently discontinued; whereas, the patient will maintain the other 2 nurses for a few days longer.

Heretofore, the Hospital charged \$1.50 per nurse per day or night for board. Since an 8-hour period covers only 2 meals, patients are charged \$1 per nurse, so that if they have 3 nurses the board bill is now no larger than before, and if they have 1 or 2 nurses, the board bill is less than before.

I do not feel that the change to 3 nurses in 24 hours has in any way disturbed the patients. There has been one instance of a prospective patient who, anticipating admission, called the Hospital and said she would not come in, as we had a "hold-up game" to get work for the nurses.

Up to October 1, this plan had been in effect 72 days in this hospital and over that period there were 72 extra nurses called for at least 1 day, and many of them for longer periods of time. The problem of unemployment among Orange Memorial Hospital nurses, our own being given preference for patients here in the hospital, is practically eliminated. The nurses are finding time to attend lectures and meetings, and some of them have started educational work now that they have a day of reasonable length. They do, of course, feel that to be comfortably situated, their nursing will have to be pretty steady at the reduced rate; but, as seen against the terrific unemployment which is all about us, this hardly merits consideration at the moment.

SPECIAL NOTE ON POST-GRADUATE COURSES

(A letter from Dr. Samuel A. Cosgrove, Chairman of the Committee on Hospitals and Medical Education of the Medical Society of New Jersey.)

An informal conference was held in Jersey City on Sunday, October 30, attended by Chairman Cosgrove; Dr. Satchwell, technical adviser of the University Extension Division, Rutgers University; Professors Miller, Chaffee and Light, representing that Division; and, Dr. B. S. Pollak representing the Tuberculosis League of New Jersey.

The Tuberculosis League is most anxious to make available to large numbers of general practitioners, courses in tuberculosis, especially with reference to its early diagnosis. It desires to make these courses available to a larger number of men than might subscribe to courses through initial interest in this subject.

A scheme was tentatively worked out, therefore, to have the Committee on Hospitals and Medical Education set up several such courses in the State, interest in subscribing to which would be stimulated by the offering of "free scholarships" therefor, at the expense of the Tuberculosis League of New Jersey. Further information as to confirmation and details of this arrangement will be published after the first of the year.

The Chairman had the pleasure of being present on the evening of November 1, at the first lecture of the 1932-33 series of Post-Graduate Courses at the Epileptic Village at Skillman, Dr. M. A. Burns, of Philadelphia, giving the first lecture on "Organic Neurology". This course is given under the auspices of the Somerset County Medical Society, and was attended by a goodly sized group drawn from quite a wide area, whose members manifested considerable interest and enthusiasm in a very practical type of presentation, delivered by a master teacher.

Woman's Auxiliary

WHAT SOME OTHER STATES ARE DOING

(The following article is copied from the Kentucky Medical Journal of January, 1932.)

"The development of the Woman's Auxiliary to the Kentucky State Medical Association has been slow but sure. Each year a few more of the wives, mothers, sisters, widows and daughters of the physicians of the state have become seriously interested in the possibilities of its development and their joint contributions have rendered it more and more effective. Not only in Kentucky, but throughout the United States, no other organization has contributed more to public health education, including the value of scientific medical service, than the women who are allied with the medical profession. A natural result of this development in such an organization has been for it to seek increasing avenues, both of self-improvement for its members and of expression for its plans, policies and methods, so that they can be of the greatest benefit to the public and to the profession.

The State Medical Journals have given as generously of their space as has been found possible. In Kentucky we have been able to give rather more than the average amount of space to the Auxiliary through the generosity of one of our members who has paid for the pages thus used.

The Auxiliary, with the approval of the House of Delegates, at the Lexington meeting, felt that the time had come for recognizing the efficiency and dignity of our Woman's Auxiliary by permitting them to provide themselves with a vehicle for such expression and, to this end, with this issue we begin the publication of a quarterly supplement, which will be under the full editorial control, business management and financial support of the Auxiliary. The officers of the organization have secured sufficient financial support to assure their financial independence. Of course, the supplement will be mailed to every member of the Association and we are writing this message to our members to urge them to take the supplement home so that the women of their families may know about the organization and may become affiliated with and support it. Its chief purpose will be to acquaint our women with the facts so that they may do their part in the leadership of public opinion along the constructive lines that have been approved by the State Medical Association and the American Medical Association.

Before turning the supplement over to the women, who will naturally be most interested in it, we urge our members to look over its pages and we know they will feel the same pride in the excellence of the work that we do. The Woman's Auxiliary to the Kentucky State Medical Association and to the American Medical Association have found a permanent place for themselves and will be heard from increasingly both quantitatively and qualitatively as years go by."

The following extract presents resolutions passed by the House of Delegates of the Oregon State Medical Society, October 24, 1931.

Whereas, the Woman's Auxiliary has made notable progress during the past year in organizing the wives of physicians and interesting them in the dissemination of sound health information to the lay public, particularly in their various local clubs; and

Whereas, the aid of the Auxiliary is indispensable in the promulgation of such knowledge and assisting the medical profession in the work of educating lay people to the great truths of scientific medicine;

Therefore, Be It Resolved: That the House of Delegates of the Oregon State Medical Society expresses to the Woman's Auxiliary its deep appreciation of their invaluable services, and pledges its whole-hearted support to their future program.

Executive Board Meeting

Reported by Mrs. Dan S. Renner

The regular Executive Board meeting of the Woman's Auxiliary to the Medical Society of New Jersey was held at the home of Mrs. C. F. Adams, 1212 Stuyvesant Avenue, Trenton, on Monday, October 17, at 11 a. m., with the President, Mrs. Adams, in the chair and 13 members of the Board present.

The minutes of the June meeting were read and approved.

The Treasurer, Mrs. Edward Clarke, read her report, which was accepted and filed.

Mrs. Adams spoke on the importance of securing new members and concerning "Child Welfare Work".

The resignation of Miss Hetherington, as Chairman of the Public Health Committee, was read by the Secretary and accepted. It was moved that Hudson County be represented in filling this vacancy.

Mrs. Adams related a conversation she had with Dr. Nichols on public health and pre-school examinations; the children are to be examined by their own family physicians and fees paid if possible. Dr. Lippincott, President of the State Medical Society, is to advise the Secretary of each County Medical Society, and they, in turn, will advise the County Auxiliary of the work to be done.

Mrs. Earl Snavely reported 22 new members in the Essex County Auxiliary.

Mrs. Van Ness stated that members of disbanded county auxiliaries may attend neighboring auxiliary meetings and become members at large. Dues of \$1 are to be paid to the State but not the County Auxiliary.

Mrs. Van Ness urged the sending of membership cards together with a follow-up letter to all new members; also including the names of members of the Board and new Constitution and By-Laws Committee.

Mrs. Van Ness read a letter from Mrs. Taneyhill, and it was decided that a prize be offered for the best essay written from Mrs. Taneyhill's talk on Public Health. A motion was made and seconded that Mrs. Clarke write to Dr. Lippincott concerning Mrs. Taneyhill's work and the Auxiliary.

The Secretary read a letter from Dr. Reik stating that the Advisory Committee to the Woman's Auxiliary no longer functions. The Woman's Auxiliary is now under the direct supervision of the President. All dealings are between the President of the State Medical Society, Dr. A. Haines Lippincott, and the President of the Woman's Auxiliary to the State Medical Society, Mrs. Charles F. Adams.

Mrs. Campbell was asked to represent the Auxiliary at the Fall Conference of the Federation of Women's Clubs on October 20, 1932, at Asbury Park. Mrs. F. J. McCauley was asked to represent the Auxiliary at Presidents' Day of the Wed-

nesday Club of the Oranges on November 9, 1932.

Mrs. Adams spoke of the work that has been done, and to be done, for the Relief of Widows and Orphans of Medical Men of New Jersey. Mrs. Clarke moved that Mrs. George L. Orton be appointed as Chairman for this work. Motion was seconded and carried.

The Executive Board meeting in January will be held in Trenton. It was decided that the Chairman of each Committee write to the Chairman of each County Committee and make a report on the year's work at the mid-year meeting. The speaker for this meeting is to be chosen by Mrs. Haggerty.

Mrs. Adams asked Mrs. Campbell, First Vice-President, to take the chair as she wished to submit her resignation as President. Mrs. Campbell moved that the President's resignation be not accepted. A general discussion followed, resulting in Mrs. Adams holding the chair until January, at which time Mrs. McCauley, Second Vice-President, is to assume all duties. A motion was made by Mrs. Clarke and seconded by Mrs. Hubbard that all County Presidents be notified of this change. Motion carried.

Mrs. R. K. Hollinshed, Chairman of Hygeia Committee, submitted her report.

Mrs. Clarke asked that a motion be made to have the State Auxiliary pay for filing cards requested by the National Auxiliary. Mrs. Renner made the motion and it was seconded and carried.

Mrs. Renner moved that flowers be sent to Miss Ann Hetherington and Mrs. A. Longstreet Stillwell. Seconded and carried.

It was regularly moved and seconded that the meeting be adjourned to the dining room where a delicious luncheon was served.

Essex County

Reported by Mrs. F. J. McCauley

The Executive Board meeting of the Woman's Auxiliary to the Essex County Medical Society met for the first time this season at the home of Mrs. H. Wallhauser in Maplewood, October 3. All members were present and the program for the year was completed.

The regular meeting was held October 24 at the Academy of Medicine Building in Newark with a splendid attendance of 50 members.

Dr. William Areson, of Montclair, newly elected President of the Essex County Medical Society, addressed the meeting with a fine message of thanks and coöperation from the members of the County Medical Society.

Dr. Charles Englander gave a wonderful talk on the Essex County Hospital at Overbrook.

Mrs. Earl Snively urged the women to be on hand November 16 at 8 p. m. at Kresge's Department Store in Newark for our Scholarship Benefit Card Party.

A social hour followed the meeting and tea was served. Mrs. William Areson and Mrs. Theodore Teimer, our Auxiliary President, poured.

Gloucester County

Reported by Mrs. Henry B. Diverty

The Woman's Auxiliary to the Gloucester County Medical Society held a Reciprocity Tea at the Woodbury Country Club. November 17, at 2.30 p. m.

Mrs. Elwood Downs, President, introduced Mrs. Casselman, of Camden, Chairman of the Public Relations Committee of the State Auxiliary; Mrs. William P. Wilkerson, President of the Woman's Auxiliary to the Philadelphia County Medical Society; Mrs. Wilmer Krusen, of Philadelphia; Mrs. Odenatt, Ex-President of the Philadelphia Auxiliary. Each of these ladies responded in fitting remarks.

Miss Kathlene Barron, of Gibbstown, gave a humorous reading which was very cleverly rendered.

The President called on Dr. Underwood to introduce the guest speaker, Dr. Wilmer Krusen, of Philadelphia. Dr. Krusen paid high tribute to the Woman's Auxiliary—National, State, and County.

The audience was large and appreciative. Tea was poured by Mrs. William Brewer and Mrs. Henry B. Diverty, and served by the members of the Auxiliary.

Hudson County

Reported by Mrs. James M. Murphy

The Woman's Auxiliary to the Hudson County Medical Society held its regular monthly meeting on November 7, at the Y. W. C. A. in Fairmount Avenue, with the President, Mrs. George M. Culver, presiding. The minutes of the previous meeting were read and approved.

Mrs. Nicholson, Chairman of Hygeia, reported that already many of the members were subscribers to this magazine, and that she had secured 3 new subscriptions, and urged all of the members to aid as much as possible in placement of this splendid disseminator of medical knowledge.

Mrs. Nevin reported the illness of our Chairman of Entertainment, and that flowers had been sent to her. She also reported the Executive Board meeting held in Trenton in October at the home of the State President, Mrs. Charles F. Adams. The Board also emphasized the desire to have Hygeia widely distributed through the efforts of the County Auxiliaries.

The Widows and Orphans Relief Fund has widened its field of service and is ready to aid doctors in temporary financial embarrassment.

A report on the theater party (which had been suggested as a means of increasing our savings fund) came up for discussion, and it was moved, seconded, and carried that it be postponed until a later date.

Mrs. Culver asked the pleasure of the Auxiliary in regard to having the December meeting the Scrap Book Day—to which everyone brings some interesting bit to be read and discussed and as this suggestion met with the approval of the members, it was so ordered.

There being no further business the meeting adjourned, and an afternoon of cards followed, arrangements for which were made by Mrs. William Freile. After the game, tea was served as usual.

Passaic County

Reported by Mrs. B. W. Botbyl

On November 14 the officers and Committee Chairmen of this Auxiliary were most delightfully entertained at luncheon by Mrs. Charles B. Russell, President, at her home in Upper Montclair.

Matters of importance were discussed which will be presented at the next regular meeting of the Auxiliary.

Somerset County

Reported by Mrs. A. Levy

The Annual Meeting of the Woman's Auxiliary to the Somerset County Medical Society was held at the Bound Brook Inn, with Mrs. Josiah Meigh presiding. The minutes of the last meeting were read and approved.

A report of the June meeting in Atlantic City was read. A few new members were added to our enrollment.

Mrs. Eaton, wife of our Congressman, addressed the women and urged voting a straight ticket and for the man who would bring stability.

A motion was made to adjourn, after which the Auxiliary members joined the County Society members in the dining room for the Annual Dinner.

County Society Reports

ATLANTIC COUNTY

John S. Irvin, M.D., Reporter

The regular monthly meeting of the Atlantic County Medical Society was held November 18, at the Chalfonte Hotel, with 25 members present.

Dr. W. Blair Stewart read a communication from the Philadelphia Medical Society informing us that the notorious Hoxie Cancer Cure is planning to invade Atlantic City. About 2 months ago, Hoxie gave a dinner at the Ritz-Carlton Hotel at which were present Enoch L. Johnson, the President of the Chamber of Commerce, the Director of WPG, and a member of our society. It is reported Hoxie's plan is to buy the Brigantine Hotel for use as a clinic, and to obtain broadcasting facilities over WPG by purchase of the station or by time rental. Hoxie and his alleged "cancer cure" have been thoroughly exposed by the American Medical Association, and whatever action be taken in this matter, we must be careful to base our action on the published reports of the American Medical Association.

Mr. Spence, Director of WPG, has given assurance that no medical broadcasting from that station will be allowed unless and until it has been approved by our society, the State Medical Society, or the American Medical Association. Dr. Stewart then read the following resolution and requested its adoption by the society:

Whereas, the Hoxie Cancer cure representatives are reported to be negotiating for purchase of the Brigantine Hotel as a base for their operations, and also for the purchase or lease of Radio Station WPG, or the rental of broadcasting time at that station; and,

Whereas, the exposé of this secret method of treatment and so-called "cure" for cancer, by the American Medical Association in the Journal of the American Medical Association, issues of Jan. 2, 1926, and Aug. 3, 1929;

Be It Resolved, that the Atlantic County Medical Society records its positive opposition to the grant of broadcasting facilities of any sort by Station WPG to this so-called cancer cure; and further,

Be It Resolved, that the Atlantic County Medical Society registers its opposition to the establishment of a Hoxie Cancer Clinic in any part of Atlantic County.

It would seem to be impossible for Hoxie to buy Radio Station WPG unless the Columbia Broad-

casting Company first gives up the lease it procured and, we believe, still holds. The sale price is mentioned as being \$75,000. Dr. Stewart said the Director of the Chamber of Commerce gave him the name of a member of this society, as the doctor who would go along with this outfit.

Dr. Stern said he had talked with a Director of the Chamber of Commerce and had been given by the latter exactly the same data. He, therefore, seconded the motion to adopt the above resolutions.

The resolution was adopted unanimously.

Dr. Kaighn announced that the Radiological Society of North America would meet here, at Had-don Hall, November 28 to December 2, 1932, and invited the members of this society to attend.

Dr. Winifred A. Blampin, of Galen Hall, and Dr. Roland L. Briton, of Mays Landing, were elected to active membership in the society.

Dr. Darnall read a list of new books recently received by the Library and extended a cordial invitation to members of the society to use the Library freely; saying that he felt the more they used it the more they would want to use it and enjoy it.

The bill for the Chamber of Commerce dues for 1932-33, in the amount of \$20 was ordered paid.

Drs. Harvey, Westney and Shimer, appointed by President Davidson as a Special Committee to draw up a resolution protesting the dismissal of approximately 50% of the school physicians, nurses and dentists, expressed themselves, in a letter, as being opposed to such a resolution and as declining to act. They stated that, in their opinion, the Board of Education is justified in practicing at present any form of economy the Board considers necessary.

Dr. Rosenblatt said he felt sure the Committee did not realize how many children being taken care of heretofore would not receive any medical attention after this dismissal has taken full effect. He also stated that he felt sure they did not have children in the schools at the present time or they would feel differently; explaining that many epidemics of children's diseases have been prevented or checked by having the children frequently examined by the school physicians.

Dr. Westney said he had looked over the financial statement in the school budget, and that it was absolutely necessary to economize in every way possible; he and his associates appreciated fully the good work being done, but believed it impossible to go on paying when there is no available money.

Dr. Stewart said he thought it absolutely necessary to have school children looked over daily by the school physician, because that is the only way measles, mumps, diphtheria, scarlet fever and other children's diseases, can, with reasonable assurance, be kept under control.

Dr. Rosenblatt added that, as to the Brighton, Massachusetts, and Monterey Avenue Schools, Parent-Teacher Associations comprising practically 1000 members had protested vigorously against the dropping of the school physicians and nurses from the school staff.

Ultimately, the Committee's report was ordered accepted and filed.

A letter from the American Medical Association, acknowledging our invitation to meet here in 1934, was read by the Secretary. It stated, further, that our invitation will be submitted to the Board of Trustees and to the House of Delegates at the proper time.

A letter signed by Miss Nellie McGurran, Superintendent of the Atlantic City Hospital, and Miss

Elsie M. Casperson, Superintendent of the Training School for Nurses, brought to attention of the members the fact that a Registry of Nurses will be conducted at the Hospital, for its own graduates, and requested coöperation of the Society in maintaining a nursing service of high character.

A letter from the Meade Johnson Company was read, offering to show certain motion pictures of operations whenever the Society might want them.

A letter addressed to Mrs. James H. Mason, President of the Woman's Auxiliary to the Atlantic County Medical Society, from the Woman's Auxiliary to the Medical Society of New Jersey, concerned plans for increasing the membership enrollment of the "Society for the Relief of Widows and Orphans of Medical Men of New Jersey". Anybody interested should get in touch with Dr. Irvin, who will give directions for becoming a member of the last mentioned organization. This is a worthy project and deserves support.

The application of Dr. J. J. Jacobson, a graduate of Hahnemann College, for membership in the Society was referred to the Board of Censors.

A letter from the Secretary of the Essex County Society, stating that Dr. W. D. Olmstead was a member in good standing and requesting a transfer of Dr. Olmstead's membership to this Society, was accepted, and he was reelected to membership by transfer.

Dr. Irvin reported his attendance at the recent Annual Conference of County Society Secretaries and Reporters, in Trenton, and directed attention to the new plan for the guidance of specialism. The State Society has requested the County Societies to select committees to pass on members who may wish to secure this certification. Such committees are to be composed of the President, Secretary and 3 members elected by the Society.

Dr. Mason suggested that this should go over until the next meeting when Annual Elections are held. He then appointed the following Nominating Committee to prepare for the said Annual Meeting to be held next month: Drs. C. B. Kaighn, W. E. Darnall, George Poland, Alfred Westney and Joseph Poland.

The paper of the evening was presented by Dr. Albert F. R. Andresen, who spoke on "Gastro-Intestinal Allergy".

Dr. Andresen said, in part: Skin conditions such as urticaria and eczema are almost always of allergic origin, as is acne and, in the mouth, the canker sore, which latter is due to some upset of the gastro-intestinal tract that can be very definitely traced to allergy. Such conditions as heartburn, diarrhea and migraine, often are due to allergy. And foods like strawberries, lobster, butter and milk are sometimes offenders. Intestinal toxemias often belong in the allergy group, for such patients get well when they stop eating meat. I believe that most of them are simply *sensitive to meat* and get certain symptoms as a result of allergic reactions. They stop eating meat and get well.

The problem of sensitivity to certain proteins is like that of immunity to disease producing micro-organisms. We use a vaccine for the same reason that we use a food protein; though we still do not know much about allergy or immunity. In school, our children may be equally exposed to a given organism and some will "catch" the disease and others will not; the same sort of problem we find in allergy—one can drink milk and one cannot. Why? We do not know.

It was formerly thought that a patient could only be sensitive to the whole protein, that it was

necessary to have the unchanged protein absorbed. Now we think it is the amino-acid radical of protein that causes the upset. Other times it may be of endocrine origin; i. e., some disturbance of the endocrine system making certain people allergic. On the other hand, certain endocrine products—such as adrenalin, parathyroid, calcium, pituitrin—have a good effect in allergy.

Allergic manifestations are apt to occur at certain times in life; especially during puberty or at the climacteric period.

Infection may play a part. There are patients who get entire freedom from symptoms by removal of focal infections. This is seen especially in hay fever. Often, after tonsillectomy, there are no more symptoms.

We want to realize also that in allergy we may find other organic conditions coinciding with the allergic condition. For instance, we can have asthma and also a cardiac lesion, or gastro-intestinal and allergic symptoms; and, such organic conditions as gall-bladder disease, appendicitis, colitis due to infection, all can present, in addition, some allergic symptoms.

I have recently gone over the records of some private office patients, mostly gastro-intestinal allergies, as they are the only kind coming to me, and the symptoms differed quite definitely from those of the asthma and hay fever patients. In a series of 2628 patients, 382 (18.7%) showed some form of allergy; and, 277 (9.6%) were gastro-intestinal. The age incidence ranged from 7 to 71, with the average around 40. Among 159 patients only 19 had no organic symptoms; 71.7% were chronic gastro-intestinal conditions; 13.8% were cardiovascular; 5.6% endocrine; focal infections, 91.8%. Of these 159 patients, 49 have had 68 separate operations; 34 on the appendix; 12.5% pelvic operations; 2.5% gall-bladder operations.

There are 2 types of reactions in the gastro-intestinal tract: (1) the direct, due to local irritation of the mucosa, with symptoms appearing shortly after eating—the time depending upon the degree of sensitivity; and (2) the indirect, in which it is part of a general reaction after the food has been absorbed, and which may begin within a few hours or may be as late as 12 or even 24 hours in appearing.

In one family all persons may not be sensitive in the same way: the father may have asthma; the grandmother hay-fever; one a chronic diarrhea; and another, some skin manifestation. The same thing applies to the patient's previous history, the periodicity of symptoms is very significant, whether they occur at regular intervals or with no apparent explanation.

The patient may take certain food at certain intervals, such as fish on Friday, and have an attack which will clear up in 12 or 24 hours only to occur again when fish is again eaten.

During an attack, the finding of an eosinophilia is of great value; they are not always increased but we sometimes get 20 to 25% during an attack.

In the treatment of hay-fever, asthma and gastro-intestinal allergy, the administration of epinephrine or ephedrin is followed by spectacular relief, sometimes in 10 minutes; but to recur when the effect has worn off. Adrenalin is helpful in the acute abdominal attacks, when symptoms are not clear-cut. It may aid, also, in diagnosis. The most important thing is to find allergic facts in the history. Milk may cause a chronic diarrhea, even in such small quantities as that taken in coffee. For such patients, having them give up milk is the solution—although it is not often so easy as

that. Foods have to be studied, and so does the patient's diet. Rowe worked out a very careful and complete dietary which can be used in checking off the foods that cause any given patient to have an attack. One must try foods out one at a time to prove which cause trouble, and then we must prove to the patient, by actual tests, that those foods cause his trouble. In gastro-intestinal allergy skin tests are not of much value. It is a great deal more certain to make diet studies and prove to the patient that his condition depends on his taking or leaving certain foods.

In treatment, eliminate the allergic factor as quickly as possible; push fluids, washing the allergic protein out as quickly as possible; and relieve the symptoms by giving epinephrine, ephedrine, calcium and parathyroid. Ephedrine is the drug of choice because it can be given by mouth and is very effective, but not as quickly as adrenalin; calcium and parathyroid are much slower. We must also restore the normal function of the gastro-intestinal tract by feeding. I believe it is a mistake, after diarrhea, to starve the patient. Give a cathartic and order a meal to be eaten within 1-2 hours.

In the desensitization treatment of food allergy, hypodermic injections are not necessary. We can desensitize very satisfactorily by diet, starting with minute quantities and working up. If it be milk, we start with a drop dose and increase each day until the patient can take a few ounces in the day's meals and live very comfortably. With egg, we sometimes have to start by putting 1 teaspoonful of egg in a glass of water, giving a drop of that, and then working up. Eventually, these patients can eat their puddings and not have any trouble. As to wheat, we start with a small pellet of bread and work upward. Once desensitized, these patients must eat the offending food daily or they will again become sensitive.

BERGEN COUNTY

Charles H. Littwin, M.D., Reporter

The regular monthly meeting of the Bergen County Medical Society was held at the Hackensack Hospital, November 15, with the President, Dr. Schmidt, in the chair and about 70 members present.

The minutes of the last meeting were read and approved, and the minutes of the Executive Committee meeting were read by the Executive Secretary, and they were approved as read.

The proposal to have photographs of all the members made by the Arthur Studios, according to the plan offered, was adopted.

The following men were elected to membership: Dr. Frank I. Nichols, of Hackensack, to *regular*; and Dr. Benjamin M. Morrison, of Woodbridge, to *junior* membership.

Applications from the following were read: Dr. Samuel Legato, of Cliffside Park (*Junior*); Abraham I. Friedman, of Little Ferry (*Junior*); Joseph Pedevill, of Palisade Park (*Regular*); Charles B. Kenney, of Fair Lawn (*Regular*).

The following men are eligible for election from *Junior* to *Regular* membership at the next meeting: Raymond N. Berke, Joseph G. Gershman, Juan A. Villegas, Barnet S. Bookstaver, L. A. Markley, William Fliegel, Gladys Winter, Cornelius Kraissl, F. J. Vita.

The President called attention to arrangements for the Annual Dinner, of which Committee Dr. Protzman is Chairman, and also to the agreement

which has been negotiated with the State Relief to pay the doctors \$1 each for calls on indigents.

The Secretary reported on the Conference of Secretaries and Reporters recently held at Trenton.

Dr. Leroy Black, President of the Hackensack Hospital Staff, took charge of the meeting at this time. Dr. H. B. Wilson spoke on plans of the Hospital Staff and Board of Governors to curb the Out-Patient Department.

Case reports and mortality discussions were given by members of the Staff.

Dr. Paul Rezinkoff, Associate Professor of Medicine at Cornell University, then spoke at length on "Anemia".

Dr. Vincent Farmer, of Hackensack, concluded the program with "A Comparative Study of Gastrointestinal Surgery in European and American Clinics".

The Society, voting on the motion of Dr. Hall-ett, elected Dr. J. Finley Bell, of Englewood, to Honorary Membership.

BURLINGTON COUNTY

Roscius I. Downs, M.D., Reporter

The 103rd Annual Meeting of the Burlington County Medical Society was held Wednesday afternoon, November 9, at the St. Mary's Guild House, Burlington, with the President, Dr. Curtis, in the chair and 30 members and guests present; the guests including Drs. J. Bennett Morrison, Secretary, and Frederic J. Quigley, First Vice-President of the State Society.

The following physicians were elected to membership: Samuel T. Busansky, M.D., of Fairview Sanatorium, New Lisbon; and Carlton Patrick Hogan, of Burlington. The following applications for membership were read: Edward James Muldoon, M.D., of Florence, N. J.; E. Vernon Davis, of Vincentown, N. J.

Dr. Newcomb stated that Dr. Joseph Stokes will have completed, in April 1933, 50 years in practice. This is an honor and should be properly recognized. All were in favor of a "dinner" given by the members of the County Medical Society, and with his friends and officers of the State Society, to celebrate the event.

Dr. Kuder reported on the project of building an infirmary at the Y. M. C. A.'s Boy Camp—"Camp Ockanickon"—at Medford. This camp takes in boys from Ocean, Monmouth, Gloucester and Burlington Counties. The infirmary should be a building similar to those on the grounds, but would contain only screened cot-beds and such equipment as is necessary for rendering first-aid. This will be a temporary isolation place for any boy who becomes suddenly ill.

Dr. Curtis, reporting for the Education Committee, said that no series of lectures had been arranged, as was planned, but speakers on medical subjects will be procured when requested.

Announcement of a combined meeting of the Section on Obstetrics, of the Academy of Medicine of Northern New Jersey, with the Medical Commission for Maternal Welfare, of each county, in Newark, December 1, was read. Dr. Fahrenbruch was appointed to attend and represent Burlington County.

The Nominating Committee, composed of Drs. Downs, Rogers and Newcomb, presented the following names as officers for next year, and all were duly elected:

President, John S. Conroy; Vice-President, Jacob M. Davis; Secretary and Treasurer, George T.

Tracy; Reporter, Joseph M. Kuder; Censors, E. R. Mulford, J. E. Dubell and R. D. Anderson.

Delegates to State Society, Harry L. Rogers, Emlen P. Darlington and E. Warren Rodman. Alternates, Hammell P. Shippis, E. Lester Small and F. D. Fahrenbruch. Nominating Committee State Society, Harry L. Rogers; Alternate, Emlen P. Darlington.

DELEGATES TO COUNTY SOCIETIES

Atlantic County, Dean H. LeFavor and Parry M. Scott. Camden County, Luther Hartman and R. Ernst Imhoff. Cape May County, George J. Wagner and Charles S. Mills. Gloucester County, D. H. B. Ulmer and W. S. Sutherland. Ocean County, Lyman B. Hollingshead and Robert E. Halderman. Salem County, Milton M. Schisler and Elizabeth F. Love.

Chairman Section of Practice of Medicine, for January meeting, Samuel Buzansky.

Chairman Section for Surgery, for March meeting, Harold E. Longsdorf.

Chairman Section for Obstetrics and Gynecology, for May Meeting, Howard C. Curtiss.

Chairman Section of Specialties, for September meeting, Eugene A. Meyer.

Committee on Specialist Credentials, composed of County Society President, Secretary and 3 other members: E. R. Mulford, Marcus W. Newcomb and Joseph Stokes.

Dr. Curtis delivered his Presidential Address, his subject being—"Thoughts on the psychologic aspects of the treatment of patients, and the interesting history of the Custodianship of Historic Mementoes in the College of Physicians of Philadelphia". This unusual and interesting paper will be forwarded for publication in the Journal.

While at dinner, the First Vice-President of the State Medical Society, Dr. Quigley, spoke to us of, and discussed mainly, the "Meditorial" in our bulletin, entitled "What Is a Hospital".

The meeting adjourned to re-convene in January at the Fairview Sanatorium.

CAMDEN COUNTY

Vincent Del Duca, M.D., Reporter

The regular meeting of the Camden County Medical Society was held at the County Hospital for Mental Diseases, at Lakeland, November 1, with Dr. A. B. Davis presiding, and 84 members present.

Dr. Frank Stem, Medical Director of the Camden County General Hospital, made a few introductory remarks concerning the foundation and progress of the County Institutions at Lakeland, and then introduced the essayist of the evening, Dr. R. Grant Barry, of Trenton, who gave an interesting talk on "The Etiology, Diagnosis and Treatment of the Commoner Psychoses"; presenting a number of illustrative cases.

Discussion was opened by Dr. C. Fred Becker, and further participated in by Drs. Goldstein, Caselman and Barry. The society accorded a vote of thanks to the essayist.

Dr. John S. Davis, of Haddonfield, was elected to membership.

Drs. Roy G. Hays, Herman E. Wiant, Charles Driscoll and Arthur McCallum were proposed for membership.

Dr. F. H. Corpening made application for membership by transfer from Burlington County, with the endorsement of that society.

On motion of Dr. T. K. Lewis, seconded by Dr.

Macalister, Dr. John W. Marcy, 117 E. Park Avenue, of Merchantville, was proposed for Honorary Membership in the society.

A letter from Dr. W. Blair Stewart, of Atlantic City, was read by the President of the society, expressing his appreciation of the resolution of sympathy from this Society relating to the illness of his son, Dr. Walter B. Stewart, and his grandchildren.

On motion of the society, Dr. Frank Stem was extended a vote of thanks for having made possible the visitation of the society to the Lakeland Hospital.

A collation was served by the Hospital Superintendent, Miss M. H. Hess, following conclusion of the Scientific Program.

CAPE MAY COUNTY

Eugena Way, M.D., Reporter

The Annual Meeting of the Cape May County Medical Society was held at the Ocean City Golf Club on Thursday evening, November 10, under the Presidency of Dr. Allen Corson, who was re-elected along with all of the other officers. (Incidentally, the Secretary, Dr. Eugene Way, of Sea Isle City, is entering upon his twenty-sixth yearly term of service in that capacity.—Ed.)

Other officers reelected were: Vice-President, Dr. Warren D. Robbins, of Cape May; Treasurer, Dr. H. H. Tomlin, of Wildwood.

Dr. Clarence W. Way, of Sea Isle City, was again chosen as Delegate from this county to the New Jersey State Medical Society for a period of 3 years and was also reappointed as Cape May County's member of the Nominating Committee of the State Medical Society.

The Woman's Auxiliary of the society graced the occasion with their presence, and following the business session, both organizations enjoyed the society's Annual Banquet.

Delegates were in attendance from Atlantic, Cumberland, Salem, Gloucester, Camden and Essex Counties. Dr. A. Haines Lippincott, of Camden, President of the State Medical Society, and Dr. J. Bennett Morrison, of Newark, State Society Secretary, were also present.

The speaker of the evening was Dr. Hutchinson, of Camden, who gave an illustrated lecture on the relation of x-rays to the general practice of medicine.

Dr. William F. Keck, of Cape May, was elected to membership in the society.

ESSEX COUNTY

Earl Le Roy Wood, M.D., Reporter

The Essex County Medical Society held a meeting Thursday evening, November 10, at the Academy of Medicine of Northern New Jersey, Newark.

President William H. Areson introduced Alexander O. Gettler, Ph.D., Professor of Chemistry, New York University; Pathologic Chemist to Bellevue Hospital; and Toxicologist to New York City. Dr. Gettler spoke on the subject—"Problems Concerning Alcohol in the Human" and with the assistance of lantern slides described his methods: for (1) the postmortem determination whether a person was intoxicated at the time of death; (2) for the chemical determination of intoxication in a living person; and (3), for the isolation of ethyl alcohol from all normal persons who have not

drunk at all. Briefly, Dr. Gettler's method in the first case is to distill the alcohol out of the brain and determine its quantity by oxidizing the alcohol to acetic acid and titrating the acid with a known alkaline solution. In the living person, the spinal fluid is used instead of the macerated brain. He produced evidence that the examination of the brain and spinal fluid only is reliable; the gastric contents, blood and urine being misleading.

Mr. Lewis Costuma, Inspector, New York Police Department, and Chief of the Crime Prevention Bureau of New York City, described the work and purposes of his department, the first of its kind to be established in any American municipality. His department is striving to detect and counteract the under-lying factors leading to crime, and the social errors of childhood and the developmental years. All wayward minors between the ages of 7 and 16 are referred to his bureau and he told about the efforts made to utilize recreational and educational agencies to encourage good citizenship and respect for law. He asked that *formative* rather than re-formative methods be used to stay the procession of youth through the criminal courts.

Dr. Harrison S. Martland, Chief Medical Examiner of Essex County, ably discussed the paper.

The meeting was preceded by a dinner at the nearby Elks Club, where the general membership of the County Society acted as joint host to the speakers of the evening. There was a large attendance.

Drs. Edmund III and Fletcher J. Carman acted as tellers at the election of the following new members: Benj. B. Adehnon, 190 Clinton Avenue, Newark; Hobart M. Agnew, 27 South Fullerton Avenue, Montclair; Rocco J. Caruso, 222 Mt. Prospect Avenue, Newark; F. J. Coughlin, 594 Kearny Avenue, Arlington; Philip R. D'Ambola, 537 Roseville Avenue, Newark; Paul Dranow, 205 Franklin Avenue, Nutley; I. D. Haskell, 62 Farley Avenue, Newark; Herbert L. Mahood, 86 Durand Road, Maplewood; Alfred Meurling, 158 Harrison Street, East Orange; Abraham Mintz, 108 Treacy Avenue, Newark; Bertram S. Perham, 199 Lorraine Avenue, Upper Montclair; Abraham L. Reich, 83 Lyons Avenue, Newark; Arthur S. Solk, 505 South Thirteenth Street, Newark; Joseph G. Sutton, Essex County Hospital, Cedar Grove; Robert B. White, 177 South Burnet Street, East Orange.

The Academy of Medicine of Norther New Jersey Eye, Ear, Nose and Throat Section

A. Russell Sherman, M.D., Secretary

The November stated meeting of the Academy of Medicine of Northern New Jersey was held Thursday, November 17, at 8.45 p. m., under the auspices of the Eye, Ear, Nose and Throat Section.

The President, Dr. Wells P. Eagleton, called attention to the recent death of Dr. E. D. Newman, Secretary Emeritus, speaking briefly of the many valuable services which he had performed in the interest of the Academy since its founding. Dr. Erwin Reissman read a resolution expressing appreciation of Dr. Newman's long and faithful work for the institution, and the feeling of loss caused by his death.

The meeting was then turned over to Dr. E. A. Curtis, Chairman of the Eye, Ear, Nose and Throat

Section, who introduced the speaker of the evening, Dr. Gordon M. Bruce, of the Department of Ophthalmology, of Columbia University.

Dr. Bruce read a paper on "Eye Symptoms as Signs of Vascular Disease", in part as follows: The eye sometimes offers the only indication we have that vascular disease is present, and these signs may be found in almost any part of the eye; some of them are seen only by the ophthalmologist, but many others may be, and are, recognizable by most family physicians. The possible types of lesion are 3, a leakage (hemorrhage), an expansion (aneurysm) or a blockage (embolism, thrombosis, spasm).

The ordinary diffuse subconjunctival hemorrhage is usually of no significance, but punctate hemorrhages in the fornix are often embolic phenomena of subacute bacterial endocarditis. Exophthalmos, pulsating if caused by an aneurysm of the internal carotid, a thrombosis of the cavernous sinus, or an arteriovenous communication; and, non-pulsating, as in a subperiosteal hemorrhage of the orbit; may be vascular in origin.

Observation with the ophthalmoscope offers the largest field for discovery of vascular disease as it appears in the eye. We may find pallor of the optic nerve; choking of the optic nerve; arteriosclerosis; retinitis; hemorrhages; occlusion of the central retinal artery; or thrombosis of the central retinal vein. Intracranial vascular lesions are often expressed in the form of visual disturbances; such as bilateral field defects or muscle paralyses, with consequent diplopia.

Dr. Bruce's talk was supplemented with lantern slides illustrating the lesions described.

Dr. George H. Lathrope, who opened the discussion, stated that he considered eye-ground changes in chronic disease to be of great significance, and he had found them to be of importance, not so much in diagnosis as in prognosis. He spoke of the great frequency of localized arteriosclerosis, and urged the consideration of the question—whether hypertension is a truly vascular disease or a toxic one, with the liver, perhaps, as a causative agent.

Dr. L. H. Loeser asked how often retinal hemorrhages are seen associated with subarachnoid hemorrhage, and also, what was the explanation for the frequency of paralyses of the third and sixth nerves in this condition. He added that hemianopias caused by vascular lesions are usually posterior and commonly associated with thalamic symptoms.

Dr. F. C. Webner asked if one can differentiate between spasm and blocking of the central retinal artery.

Dr. Andrew Rados mentioned several ocular manifestations of arteriosclerosis which might not be seen by the general practitioner, but which would be met by the ophthalmologist.

Dr. Bruce, in closing, said that arteriosclerosis may be so localized that it is present in the retina of one eye but not in the other. He was not familiar with any statistics concerning the frequency of retinal hemorrhage associated with subarachnoid hemorrhage, but felt that Dr. Loeser's estimate of 10% was reasonable. In answer to Dr. Webner, he stated that spasm and embolism of the central retinal artery are indistinguishable, and that either may cause the same end-result in the eye.

GLOUCESTER COUNTY

Henry B. Diverty, M.D., Reporter

Dr. William Pedrick, of Glassboro, was elected President of the Gloucester County Medical Society at the 114th Annual Meeting held at the Pitman Golf Club November 17.

Other officers elected for the ensuing year were: B. A. Livengood, Swedesboro, Vice-President; Ralph Hollinshed, Westville, Secretary and Treasurer, and H. B. Diverty, Woodbury, Reporter. The latter 2 were reelected, having served several years in their respective offices.

The following were elected to the Board of Trustees: William Brewer, Woodbury, 3 years; Duncan Campbell, Woodbury, 2 years, and J. Harris Underwood, Woodbury, 1 year.

Dr. Pedrick was also elected as Delegate to the New Jersey State Medical Society for 3 years, with Edwin R. Ristine, Westville, as Alternate. Dr. William Brewer and Ralph Hollinshed are hold-over Delegates to the state association, with C. I. Ulmer and I. W. Knight as Alternates.

Drs. Wilson Stout, Wenonah; H. L. Sinexon, Paulsboro, and Ulmer, Gibbstown, were elected to the Board of Censors.

The Program Committee has the following members: Drs. Ralph Moore, Woodbury; Ristine and Fuller G. Sherman, Woodbury.

Dr. E. E. Downs, Woodbury, was named as member of the Nominating Committee of the State Medical Society, with Dr. J. H. Underwood as Alternate.

The following Delegates were elected: to Cape May County—Drs. Duncan Campbell, H. B. Diverty and William Brewer; Salem County—Drs. S. P. Ashcraft, I. W. Knight and B. A. Livengood; Camden County—Drs. Hollinshed, Diverty, Crain, Sherman and Downs; Cumberland County—Drs. Dorothy Rogers, Underwood and Nelson; Burlington County—Drs. Ulmer, Don Weems and William Brewer; Atlantic County—Drs. Horace M. Fooder, Moore, C. A. Bowersox and Victor I. Barrows.

Papers on 3 subjects were presented by Dr. S. Creadick Rhoads, "Asthenopia in Children"; Dr. Fuller G. Sherman, "Generalized Adenopathy"; and Dr. Edwin R. Ristine, "Cyanosis". The papers were discussed by Dr. H. L. Sinexon and Dr. T. M. Gairdner.

Motion pictures on "Traumatic Surgery of the Extremities" were shown by Dr. C. A. Bowersox.

Dr. Diverty reported on the University Extension Courses and Dr. Underwood on Maternal Welfare.

The report of the Treasurer showed a good balance on hand.

Following the meeting, a supper was served.

Members present were: Drs. E. E. Downs, Harry Nelson, J. H. Underwood, Fuller Sherman, Ralph Moore, Duncan Campbell, H. B. Diverty, William Brewer, William E. Crain and Dorothy Rogers, of Woodbury; B. A. Livengood, Swedesboro; Oran A. Wood, Paulsboro; Horace M. Fooder and Wright, Williamstown; Charles Pedrick and William Pedrick, Glassboro; Ralph Hollinshed, Westville; and Oram R. Kline, Woodbury.

HUDSON COUNTY

Charles Sirken, M.D., Reporter

The Hudson County Medical Society held its regular meeting on Tuesday, November 1, at the Carteret Club, Jersey City.

Reduction in dues from \$20 to \$15 was voted upon and adopted.

Mr. Christy, M.E., of the Smoke Abatement Commission, gave a short talk on the subject of smoke in relation to public health, and requested the Society to cooperate with him in efforts to dispose of the nuisance.

The following amendments to the By-Laws were voted upon and adopted:

(1) Past-Presidents are to sit in as Advisors to the Executive Committee, but shall have no vote.

(2) Any member who affiliates himself or herself with any clinic or dispensary not actually operating in an established and recognized hospital, unless such clinic or dispensary has been approved by this society, shall be liable to censure, suspension or expulsion.

(3) There shall be 2 classes of members in the Hudson County Medical Society—*active* and *associate*. An associate member shall have all the rights of an active member except the right to vote and hold office. All new applicants for active membership shall first qualify by a probationary associate membership of 2 years' duration. At the termination of this time, they shall apply for active membership. Dues for an associate member shall be \$5 per annum.

The following were elected to associate membership: Drs. James L. Hollywood, Grover H. Jensen, J. Krevin Lehr, J. R. O'Sullivan, G. F. Piltz and S. J. Staciva.

Dr. Murray Bass, Attending Pediatrician of the Mt. Sinai Hospital, New York City, gave a talk on "Serum in the Prevention and Treatment of Disease in Children".

In pediatric practice, animal serums used most often in scarlet fever, erysipelas, diphtheria, meningitis, and tetanus; human serums in measles, scarlet fever, poliomyelitis and in relation to transfusions.

In cerebrospinal meningitis, if there is a profuse eruption and signs of sepsis the serum should be given intravenously and intraspinaly; but if there are marked meningeal symptoms and a mild rash, omit the intravenous route, which we use because of sepsis. The average patient is given the serum twice a day for the first 2 days, and then once a day. One must be guided mainly by the child's general condition, by the meningeal signs, and, above all, by the presence or absence of living cocci in the spinal fluid. When complicated by severe symptoms of serum sickness, the serum should still be given if the cerebrospinal fluid shows positive organism cultures. We should definitely determine whether the serum is actually agglutinating. Never inject more serum than the amount of spinal fluid removed. Infants should receive 15-20 c.c. at a dose. All serums, whether given intraspinaly or intravenously, should be given slowly, and in the case of meningococcus serum, by gravity.

Dr. Bass uses human serum as a prophylaxis in measles, to be procured preferably from patients 8-14 days after defervescence. In exposed children, the results are excellent if given 1-4, but less than 8, days after exposure. He uses 5 c.c. of convalescent, or 25 c.c. of adult serum. To modify the disease, one should use 1/3 to 1/2 of the above doses. Bass would use serums to protect all infant contacts and all children debilitated by other diseases; convalescent serum injections protect for only 3 weeks but are effective in 93% of such children, and adult human serum protects about 50% of them.

Freeman recommends the use of human serum for prophylaxis in scarlet fever, taking the serum from the donor 6 weeks after his illness; 5 c.c. in young children, and 10 c.c. in older children and adults. About 85% are protected.

The use of serum in poliomyelitis is still very unsatisfactory.

Bass prefers transfusion in erysipelas.

Tetanus antitoxin causes particularly severe serum sickness, and should be used only where there are deep puncture wounds or lacerations with presence of foreign matter which cannot be removed.

In lobar pneumonia, children usually do so well that serum is not needed. In older children with violent onsets, and with the proper types, serotherapy should be used.

The following members took part in discussion: Drs. Heilbrunn, Rosenstein, Kuhlmann, Nelson, Stein, Maras, Alexander, Bortone and D'Acerno.

HUNTERDON COUNTY

B. S. Fuhrmann, M.D., Reporter

The Hunterdon County Component Medical Society met at the New Jersey Sanatorium for Tuberculosis, at Glen Gardner, on October 25, in connection with the third session of the Hunterdon County Tuberculosis Institute. The meeting was called to order by President Topkins at noon, with the attendance: Drs. Gramsch, McCorkle, Apgar, H. M. Harmon, Closson, Coleman, Fuhrmann, Fulper, Clark, Decker, Tompkins, Thomas, Topkins, Boothby, Heil, Lane, Knox, English, Slavin and Christensen. As guests, we had Drs. Morrison (Secretary of the State Society), Gross, Crawford, Mobilio and Brandwein.

The application for membership, of Dr. P. W. Baker, was received and referred to the Board of Censors.

The following Committee on Post-Graduate Medical Education was appointed: For 1 year T. B. Fulper; 2 years T. H. Coleman; 3 years G. B. Tompkins.

The following nominations of officers for the ensuing year were presented: President, W. E. McCorkle, of Ringoes; First Vice-President, F. A. Thomas, of Flemington; Second Vice-President, I. R. Boothby, of Clinton; Treasurer, E. W. Closson, of Lambertville; Secretary and Reporter, B. S. Fuhrmann, of Flemington; Delegate to State Society, B. S. Fuhrmann; Alternate, G. B. Tompkins. Member of Nominating Committee, S. B. English; Alternate, A. H. Coleman.

There being but one nominee for each office, the President cast the ballot and declared them elected.

After discussing the plan for control of specialism, as outlined by the State Society, the following County Committee was elected: Drs. S. B. English, I. T. Topkins, E. W. Lane, W. E. McCorkle and B. S. Fuhrmann.

The meeting adjourned at 1 p. m., for dinner, after which we attended the Hunterdon County Tuberculosis Institute.

The society gave a vote of thanks to Dr. English, who, as Chairman of the Committee on Program for this occasion, presented such a delightful and instructive meeting. All who attended profited by the interesting talks given and now have a better conception of the disease, tuberculosis, and its problems. Drs. Beardsley, Kaufman and Slavin, and the entire staff at the Sanatorium, were thanked for the efforts in our behalf.

A synopsis of the 4 lectures, prepared by Dr. Gramsch, follows:

The Hunterdon County Tuberculosis Institute was arranged for the physicians of Hunterdon, Warren, Sussex and Somerset Counties and was held October 18, 21, 25 and 27. We were very fortunate in that Dr. English, in arranging for these lectures, was able to secure Dr. E. J. G. Beardsley and Dr. Kaufman, both of Philadelphia and both authorities on tuberculosis. The lectures were well attended and well received, and the physicians in the community have now a much better conception of tuberculosis problems.

First lecture, given by Dr. English, of Glen Gardner, Superintendent of the Sanatorium, was on the subject—"The Diagnosis of Tuberculosis in Children". He laid great stress on how easy it is to make mistakes, and warned the general practitioner against making a diagnosis from the radiograph alone, or by just giving the child a chest examination, as either might lead him astray; and he exhibited a number of x-ray plates to illustrate this point.

The safest way to make a diagnosis in children is: (1) A Mantoux test. If inside of 48 hours you have an extensive edema (measuring more than 15 mm. in circumference, and raised more than 2 mm.), with a wide area of redness but no necrosis of the skin; and, in a few instances, redness extending along the lymphatics; you have what is called a 3+ reaction. (2) A very carefully taken, personal, clinical history. (3) Full and complete family history. (4) Radiography. (5) Chest examination. With these properly before us, we are in a position to make a diagnosis in any given case.

Dr. English placed a great emphasis on the early diagnosis of tuberculosis in children, before they give a positive sputum; because, once bacilli are found in the sputum the prognosis is grave.

Notwithstanding various aids in diagnosing tuberculosis, we find history, symptoms, and physical signs are the most important factors. The Mantoux test and radiographic evidence sometimes are misleading. Dr. English emphasized the fact that, in any family where a child is found to be tuberculous, the parents and all other members of the family should be examined and sputum-tested. Carriers of tuberculosis exist, just the same as with other infective diseases, and cases are on record where a parent has innocently infected one after another of his children.

Second lecture. "Difficulties Confronting a Physician in Making a Diagnosis of Pulmonary Tuberculosis." Dr. E. J. G. Beardsley, Professor of Clinical Medicine, at Jefferson Medical College, Philadelphia, warned physicians not to pin their faith on x-ray plates alone, nor on physical signs alone, and to be careful about pronouncing a man "tuberculous" until he had given at least 4 positive sputums. He made a special point with regard to history taking; that one must be careful to elicit the facts pertaining to operations such as tonsillectomies or extraction of teeth, because operations upon the nose or throat are often followed by chest symptoms; such as board-like chest, dullness, rales, blood-spitting with constant negative-sputum, as these very often prove to be of lung-abscess origin and not pulmonary tuberculosis. Always have a blood-Wassermann to rule out syphilis of the lung, because that condition, while rare in most localities, may give the appearance of being tuberculosis.

Another condition which should not be overlooked, is Vincent's angina, or trench-mouth, as

this is a frequent cause of lung abscess, and blood-spitting. Bronchiectasis can be ruled out with the aid of the bronchoscope.

Third lecture. Dr. Kaufman, Professor of Medicine, University of Pennsylvania, like Dr. Beardsley, urged careful history, above everything else, in the diagnosis of pulmonary tuberculosis, reiterating, time and again, that x-ray pictures and physical examinations, although each is very helpful, cannot be regarded as conclusive. One must always take a blood-Wassermann, to rule out syphilis; and have a culture made for the spirochete of Vincent's angina, to rule out that condition; because these 2 affections are more often than any others mistaken for tuberculosis. A careful history which shows several previous so-called pneumonias, should prompt the physician to have made several sputum examinations and a very careful physical examination, seeking further evidence of tuberculosis. Any patient having a cough which has lasted 6 weeks or longer, and with the history of similar happenings at numerous times, warrants a suspicion of tuberculosis and calls for a further careful history, physical examination, and sputum examinations not only of the patient but of all members of the patient's family.

Fourth lecture. "Treatment of Tuberculosis in the Sanatorium at Glen Gardner", was described by Dr. F. O. Slavin, of Glen Gardner, who said, in part: Control of the cough is very important, because it is very exhausting to the patient and also apt to cause hemorrhage. Bromides are preferable to other sedatives. Morphine should be avoided as it causes constipation and retards the elimination of toxins. Compression treatment in its different forms—phrenectomy and thoracoplastic operations—was discussed in detail. X-ray plates were shown to illustrate the effects of these methods.

Artificial pneumothorax was shown in x-ray plates, from which it was easy to observe how, by compressing the lung, it was put at rest and its cavities caused to close. Dr. Slavin said that after the lung is put at rest the patient becomes less toxic, sputum negative, and expectoration very much decreased in amount. Sometimes, due to adhesions to the chest wall it is impossible to close the cavities by pneumothorax and a phrenectomy must be resorted to; an operation which causes a paralysis of the diaphragm on that side, which causes the diaphragm to become elevated, and thus assists the artificial pneumothorax.

As a last resort, thoracoplasty may be done.

MERCER COUNTY

A. Dunbar Hutchinson, M.D., Reporter

The Mercer County Medical Society held its Annual Banquet at the Cartaret Club on the evening of November 10; the regular meeting for the month being absorbed in this session, at which time several applications for membership were read and referred to the Committee on Membership.

Dr. G. N. J. Sommer gave a very entertaining account of his recent visit abroad, reciting many incidents pertaining to the Practice of Surgery, as well as discussing the more or less depressing conditions as he observed them during his travels about Europe.

There will be a Third Councillor District meeting on December 7, at the Johnson and Johnson Factory, New Brunswick, further details of which will follow shortly.

MIDDLESEX COUNTY

Medical Section of Rutgers Club

J. H. Rowland, M.D., Secretary

September Meeting

The Medical Section of Rutgers Club held its first regular monthly meeting of the season on September 30, at the Alumni House, Queens Campus, Rutgers University, with 25 members present, and Dr. Gutmann presiding.

There being no particular business to transact, Dr. Benjamin Gutmann, Chairman of the Club, presented a case of "Agranulocytic Angina", which was discussed at length by members and guests.

The discussion brought out the fact that agranulocytic angina ordinarily has an abrupt onset, usually during a period of good health, but it may occur during the course of a chronic disease. It develops suddenly, with acute symptoms, similar to a cold, followed in a few days by dysphagia, ulcerative and gangrenous stomatitis, marked toxicity and prostration. Toxic symptoms are very often followed by delirium and death. It occurs most frequently in females, and is sometimes associated with chemical poisoning or chronic infection, and the mortality rate is 90%.

Physical findings: The patient is alarmingly ill; with marked prostration, and the face and neck edematous. There is diffuse redness with patches of dirty-gray adherent membrane in the mouth and throat; rarely any enlargement of the superficial lymph-nodes or spleen; jaundice in about 50% of cases.

The essential features in the pathology of agranulocytic angina are those of a bacteremia, together with decrease or complete absence of granular cells, both in the blood stream and the bone marrow. At various stages of the disease, other conditions which must at times be considered in differential diagnosis, are: pernicious anemia; secondary anemia; aleukemia; monocytosis; Kala Azar; noma; diphtheria; Vincent's angina; aplastic anemia; thrombocytopenic purpura; monocytic angina; symptomatic agranulocytic angina.

The most promising treatment consists in the use of x-rays, blood transfusion, and nucleotides.

Dr. M. L. Morris (veterinarian) discussed the use of nucleotides in the treatment of canine distemper, which is associated with a leukopenia, and mentioned intravenous and intramuscular injections without any mortality. He is carrying on his study at the Clinic of the Raritan Hospital for Animals, at Stelton, N. J., under the direction of the Council on Nucleotide Therapy, of Harvard University, and his discussion was not only interesting but promising.

After the meeting, which was very interesting, the members were entertained at a buffet luncheon by Drs. Kler, Scott, Sherman and Voorhees.

October Meeting

The regular monthly meeting of the Medical Section of the Rutgers Club was held at the Alumni House, Queens Campus, Rutgers University, on October 28, at 9 p. m., with 30 members present and Dr. Gutmann presiding.

There being no business to transact, the speaker of the evening, Dr. Charles Gordon Heyd, associated with the New York Post-Graduate Hospi-

tal, presented the subject—"Classification and Treatment of Goiter", with the aid of lantern slides. Dr. Heyd presented the subject very clearly and very completely.

The medical aspects of goiter were discussed by Drs. Gutmann, Brown, Rowland and Toy; and the surgical aspects by Drs. Nafey, Hoffman, Runyon and McGovern; while the radiologist's views were expressed by Dr. William Klein.

While the discussion was limited to 5 minutes for each speaker, it brought out all the essential features of classification and treatment.

Dr. Heyd's classification was as follows:

(1) Goiters with hyperthyroidism—hypersecretion or dysfunction: (a) Goiter of adolescence. Pathologic gland with over-function. (b) Goiter of Graves' disease. Pathologic gland with over-function and dysfunction. (c) Goiter of adenoma—adenomatosis. Pathologic gland with over-function.

(2) Goiters with hypothyroidism or normal thyroxin secretion: (a) Simple, endemic goiter and colloid goiter. Pathologic gland—secretory activity normal or diminished. (b) Goiter of adenoma. Pathologic gland—secretory activity normal or diminished.

(3) Neoplastic goiters and inflammatory goiters.

After the meeting, the members enjoyed refreshments provided by the Entertainment Committee composed of Drs. Rothschild, Nieman, Runyon, Smith and Sullivan.

The meeting adjourned spontaneously.

MONMOUTH COUNTY

Harold A. Kazmann, M.D., Reporter

The October meeting of the Monmouth County Medical Society was held at the Fitkin-Morgan Memorial Hospital on Wednesday, October 26, with Dr. Stanley Nichols, of Long Branch, presiding.

It was announced that Drs. Daniel Featherston, O. K. Parry and James E. Fisher had received their *Fellowships* in the American College of Surgeons at the recent Convention in St. Louis; and they received the congratulations of this society.

Dr. George H. Hunt, of Red Bank, was elected to membership.

The Scientific Program of the evening consisted of an excellent presentation by Dr. Fenwick Beekman, Surgeon of the Post-Graduate Hospital and Bellevue Hospital, New York City, on the subject of the "Treatment of Acute Empyema in Children". This was ably discussed by Dr. Charles N. Sturtevant, Pediatrician to the Frankfort Hospital in Philadelphia.

The nursing-fee plan set up by the Orange Memorial Hospital was discussed and Dr. Robt. Watkins, of Belmar, Chairman of the committee, appointed to study this plan, promised a full report for the next meeting.

Since the last meeting, the society has suffered the loss by death of 2 of its members, and resolutions there-on were adopted by the society. (See Obituary Section.)

MORRIS COUNTY

Marcus A. Curry, M.D., Reporter

A special meeting of the Morris County Medical Society was held the evening of Thursday, November 17, at the New Jersey State Hospital at Greystone Park. President Pinckney made an auspicious beginning, presiding over the unusually

large attendance of 60 members and guests; among the latter, in addition to the scheduled speakers, being Drs. Pinneo and Wherry, of Newark.

Introduced by the President, Dr. Meredith F. Campbell, Urologist, from New York City, read an intensely interesting paper on—"Persistent Pyuria in Infants and Children"—which was amplified and illuminated by lantern slides, as the salient features were brought into crystal clearness by the speaker. Stress was laid upon the importance of complete urologic examinations, and of catheterizing women for specimens and emptying the bladder completely.

Discussion was led by 2 other prominent New York urologists, Drs. George F. Hoch and John Toole, and they were followed by Drs. Pinneo, Wherry, Frost, Thomas, Krauss, Falvello, Young, Christian, Curry, Costello, Larson, Ward and Pinckney. (The paper has been promised for publication in the Journal.)

After the formal session, upon invitation of Superintendent Curry, adjournment was taken to the cafeteria for refreshments.

PASSAIC COUNTY

Wayne W. Hall, M.D., Reporter

The regular meeting of the Passaic County Medical Society was held in conjunction with the Passaic Practitioners' Club at the Ritz Ballroom, in Passaic, on Thursday, November 10 at 9 p. m.

The regular business meeting was omitted because of the deaths of Dr. George Davenport, of Passaic, and Dr. Thomas Dingman, of Paterson.

The resolutions concerning the death of Dr. Davenport were read by the Secretary and are incorporated in the minutes of this meeting. (See obituaries in this Journal.)

The Scientific Program consisted of 2 papers, the first, "Newer Findings in Endocrinology", was presented by Dr. Irving Pardee, of New York City, and the second, "Treatment of Leukorrhea", was presented by Dr. A. Shulman, of Paterson. Both were instructive and stimulated considerable discussion.

There were 94 members present, and a collation followed adjournment.

Book Reviews

NEW BOOK REVIEWS

Members who regularly read this Journal will remember that we abandoned several years ago the routine listing and perfunctory review of new medical books; substituting for a part thereof, our department of *Collateral Reading*; and, in lieu of the balance, announcing once or twice during the year the best of those books submitted by the publishers—but *really reviewing* only such as were written by a member of this State Society or met some other special interest.

During the year 1932, the following new books were generously presented by medical book publishers: Cancer of the Larynx by John Edmund Mackenty; Everyday Practice Series: Functional Disturbances of the Heart by Harlow Brooks; Gastro-Intestinal Tract, William Gerry Morgan; Orthopedics in Childhood, William L. Sneed; Pos-

ture, Frank D. Dickinson; published by J. B. Lippincott Co. Fertility and Sterility in Marriage by Th. H. Van De Velde, M.D., published by Covici Friede. Human Sterilization by J. H. Landman; MacMillan Company. Practical Medicine Series 1931: Dermatology and Urology by Wise-Sulzberger-Cunningham; General Surgery by Graham; General Therapeutics by Fantus-Kartoon; Neurology Psychiatry by Bassoe-Ebaugh; Obstetrics Gynecology by De Lee-Greenhill; all from The Year Book Publishers, Chicago. Surgery, with Special Reference to Podiatry, by Edward Adams; The Press Publishing Co. The Autobiography of a Surgeon by John Morris Dodd, published by Walter Neale. Urographic Urology, by Stanley R. Woodruff, from Wainick Printing Co., N. Y.

MEDICAL BOOKS ARE WRITTEN BY SPECIALISTS

As we write these lines, it occurs to us that—an entirely unexpected development, and a beneficial one, from the Waters' plan for recognition and certification of specialists, may be that we shall become conscious of and acquainted with a surprisingly large number of qualified specialists among our relatively small membership. There will doubtless be a fair proportion whose names will be promptly recognized as belonging to specialists whose reputations are well-known beyond the borders of the State—even internationally. Some, whose names will not be so readily recognized in a specialist classification, may have failed to receive merited recognition because only: (1) of New Jersey's geographic location—between New York and Pennsylvania, each of which has its largest city directly on her boundary line; and (2) of New Jersey's having no medical school, while both neighboring states have larger cities—Philadelphia on one side and New York City on the other—with University Medical Departments, and other distinguished medical institutions whose teaching or research staffs are being constantly advertised to the profession and the public.

Very naturally, it is the teachers, the investigators, or the experimenters who are asked to write a book, or who voluntarily do so, to aid their pupils and to record their discoveries; so, as above stated, it may be said that most medical books come from specialists.

Stanley R. Woodruff's Urographic Urology is the literary and radiographic output of a distinguished specialist of the type just described, and who is incidentally, "also a member of this club"; and, very appropriately, it appears at the psychologic moment when another distinguished specialist—member of the same branch—urology—is President of our State Medical Society.

Dr. Woodruff's book, entitled "Urographic Urology", was constructed in compliance with the previously mentioned urged to aid his pupils in urology.

If there is sound reasoning behind the Chinese maxim that one acquires knowledge most easily from pictures, Woodruff's teaching plan is logical and his book excellent; indeed, its use need not be confined to the under-graduate student, for it would seem to be quite as valuable to the clinician. It is essentially a series of x-ray pictures demonstrating urologic conditions as met with in ordinary practice. As they were made for diagnostic purposes, from actual patients, and can be studied in association with copies of the case his-

tories, this method of teaching appears to be invaluable to any student or physician interested in urology.

Morgan's book, dealing with affections of the "Gastro-Intestinal Tract", is recommended by Harlow Brooks in the following words:

This little book is designed especially to consider these disturbances of the gastrointestinal tract in such a manner as to make their recognition and proper management plain and clear. The book has been prepared by a practitioner, widely known especially for his therapeutic skill in the management of cases of diseases of the gastrointestinal tract. It is felt that his manner of presentation is such as to appeal particularly to practitioners because the work is based on actual case experience, and it is illustrated by cases studied by the author, in which his manner of diagnosis and treatment is clearly delineated.

The "Autobiography of a Surgeon"—John Morris Dodd, M.D., F.A.C.S., D.Sc., is of unusual importance; for, in addition to its valuable medical and historical features, it is vivid with truth, with the charm of personality—of a man with broad vision, intent upon placing his medical knowledge and surgical skill, and his abilities in numerous walks of civil life, at the disposal of his friends, his neighbors, his community, and humanity at large. It is an arresting record of the evolution of a rural practitioner into a scientist of nation-wide distinction, yet who remains a "Main-Street" doctor; of a man whose achievements in medicine and surgery have not set limits to his general usefulness. Rather do we find that such a physician and surgeon can take the time to participate in the political life of his town, in its educational activities and cultural development, and in every way in his power serve his community. He looks after the public health, builds a clinic and the largest and best-equipped non-sectarian hospital in his section of the country, and peculiarly fares about as well as any of his neighbors, acquiring wealth as the inevitable result of honesty, skill, and industry. The rural doctor should be and can be the leading man of his community—in the arts, as well as in the sciences of his calling.

Obituaries

EATON, Alvin Richard, died at his late residence, 116 West Jersey Street, Elizabeth on November 17, 1932.

Dr. Eaton had been ill several months, but had been about his home and even about town, although abstaining from practice, to the day of his death. He was dressing in his room, preparatory to going downstairs, when stricken.

Dr. Eaton was 54 years old on February 12, last. He was the son of the late Alvin R. Eaton, D.D.S., and Katherine O'Reilly Eaton; was born in Elizabeth and was graduated from Pingry School in 1897. He then chose Cornell Medical School. In 1902 he was graduated and went to the Mothers' and Babies Hospital in New York and later to the Elizabeth General Hospital as an intern.

Although a persistent student of his profession, he never posed as a profound man of science seeking to confound those about him with his knowledge of surgical and medical matters. Scientific

names for common-place ailments and parts of the human anatomy to him always were useful, but amusing. His patients and friends learned a merry philosophy from his penetrating and quick comment on current events.

When professional cares were lightened in the summer, he customarily took his family to an ancestral camp on Lake Eaton in the cool recesses of the Adirondack forest; a lake named in honor of his father and had been a major element in his own boyhood. Many patients often left his sanctum benefited perhaps as much by his telling of comic tales of the north woods as by medical science. Fully acquainted with his subject and thoroughly amused by the anecdotes he told, he could bring to his reviving patient a vivid scene, seemingly with the fragrance of the balsam permeating the private office. In this merry mood Dr. Eaton passed through life.

The interest he possessed in his profession is



ALVIN R. EATON

revealed more nearly complete in his record of activities than it ever was in his own words. He was a Fellow of the American College of Surgeons; a member of the American Association of Anesthetists; the Clinical Society of the Elizabeth General Hospital; the American Medical Association; the Union County Medical Society, and the Medical Society of New Jersey.

In 1906 he became Coroner, an office he held 2 years. In the same year he was appointed City Physician, a post he held until 1910. During most of his career in this city he was on the Staff of the Isolation Hospital, abandoning his vacation and working almost ceaselessly during the small-pox epidemic.

Early in his professional life he experimented in administering anesthesia and developed a process which was used for a long time at the Elizabeth General Hospital, where he was Chief Anesthetist for many years. When the hospital created

a new department of Fracture Service in 1930, Dr. Eaton was selected for its chief.

For many years he was an attending physician of the Elizabeth Orphan Asylum, but resigned that post 2 years ago.

Motoring was a favorite pastime of Dr. Eaton, as well as a professional necessity. He reveled in the joy of the open road on the long drive to Lake Eaton and had surveyed the best routing through and around point of traffic congestion. Last year he was made a special motor vehicle inspector.

Although never active in politics in a public way, except to the extent required by his service as coroner, Dr. Eaton nevertheless had an abiding faith in the Democratic party and possessed a keen comprehension of the deeper problems involved in the recurring partisan struggles.

Dr. Eaton was a member of Elizabeth Lodge, 289, B. P. O. E.

Mrs. Florence Douglass Eaton, his wife, and 2 daughters, Jane Douglass Eaton and Mrs. Mary Eaton Macnab, survive.

Resolutions Adopted by the Union County Medical Society at a Special Meeting Held November 18, 1932

The Union County Medical Society deeply mourns the loss of Alvin R. Eaton, M.D., F.A.C.S., and records the following in its minutes:

In the passing of Dr. Eaton, the Union County Medical Society loses a Past-President who was one of its most active and esteemed members.

Dr. Eaton was born in Elizabeth, attended the Pingry School, and lived his whole life in this city where, after completing his internship at the Elizabeth General Hospital, he practiced his profession for 30 years. During that period, he endeared himself to his patients by his skill, attention, his great humanitarianism and his sympathy for them. His ready wit and cheerful manner made it easier for many to bear their pains and misfortunes. When he entered and neared the bedside, the atmosphere became always more cheerful, the patient more hopeful and cooperative. To those for whom he ministered, he gave unstintingly of himself; never giving a thought to his own comfort or convenience when there was a call to duty. His services to the State and Nation, as a member of the Draft Board during the World War, were extraordinary. Here, he often labored far into the night, and gave to that duty the best that was in him. In his medical work he always upheld the highest traditions of his profession.

We desire to record the loss that is sustained by the State, the Profession of Medicine, and by this Society in particular.

To his wife and family we offer our deepest and heartfelt sympathy.

Chas. H. Schlichter, M.D.,
Milton A. Shangle, M.D.,
George T. Banker, M.D.,
Committee.

Resolutions adopted by the Clinical Society:

With profound sorrow, the members of the Clinical Society of Elizabeth General Hospital and Dispensary record the premature death of Dr. Alvin R. Eaton, Jr. His enthusiasm, his scientific con-

tribution, and his jovial spirit will be keenly missed among his colleagues and friends.

With a sense of professional and friendly loss is mingled deep sympathy for the members of his family.

The Resolutions Committee was composed of Dr. Michael Vinciguerra, Dr. Irving Lerman and Dr. George Horre.

Resolutions Adopted by the Medical Board of the Elizabeth General Hospital

The Medical Board of the Elizabeth General Hospital learns with deep regret of the death of Dr. Alvin Richard Eaton. Dr. Eaton was born in Elizabeth, the son of Dr. A. R. Eaton, who practiced dentistry in this city for half a century. Dr. Eaton was graduated from Pingry School and studied medicine at Cornell University in New York, where he was graduated in 1902. Although he suffered with a physical handicap from an accident as a young boy, he was very active and took part in all the games of boyhood, holding his own with the rest.

Following his graduation, Dr. Eaton was appointed resident physician at the Elizabeth General Hospital, where he served for 18 months with credit. After starting the practice of medicine he was appointed to the Dispensary Staff of the hospital, where he served in various departments until he received the appointment as anesthetist in 1913.

Dr. Eaton was of a mechanical mind, and he constructed the first motor-driven gas-ether machine the hospital possessed, and which was used in the hospital for a number of years. After a few years of service as anesthetist, and after he had taught the use of his machine to others, he was appointed an attending surgeon. This position he held until 1930, when his resignation was accepted on account of physical disability.

At that time a department of fractures was created in the hospital and Dr. Eaton was made chief of the service, which position he held until his death. Dr. Eaton was a Fellow of the American College of Surgeons, of the American Medical Association, a member of the Society of Surgeons of New Jersey, a member of the Union County Medical Society, and a member of the Clinical Society of the Elizabeth General Hospital.

Dr. Eaton enjoyed a large and active practice, and his genial personality won him many friends as well as patients. His service and devotion to the hospital will be missed by those connected with the institution, for the doctor gave long hours of service for the benefit of the needy. His colleagues will miss his ready wit, wise counsel, and the cheerfulness he displayed.

We, the members of the Medical Board, extend our deep sympathy to the bereaved family, and spread upon the minutes there, our resolutions.

Resolved, that a copy of these resolutions be sent to the family of the late Dr. Alvin R. Eaton, and be published in the Elizabeth Daily Journal and the New Jersey State Medical Journal.

The committee was composed of Dr. James S. Green, Dr. Horace R. Livengood and Dr. Otto Wagner.

Dr. Newman was born here July 25, 1863. He was graduated from the Lawrence Street School in 1876 and from the old Newark High School in 1880. He entered Columbia College the same year and graduated from the College of Physicians and Surgeons of New York in 1884.

Dr. Newman practiced in the city continuously from that time until his death. He was Consulting Dermatologist for the Essex County hospitals at Overbrook, Verona, and Soho, the Essex County Penitentiary at Caldwell, the Mountainside Hospital, Montclair; the Irvington General Hospital, the Hebrew Orphan Asylum, Newark, and the Newark Maternity Hospital.

He was a Fellow of the American Medical Association, the New Jersey State Medical Association and the Essex County Medical Society and was a member of the Medical Veterans of the World War and was on the Advisory Board of District 2, Newark, and was Secretary of the Medical Section of the Council of National Defense for Essex County and New Jersey. He was a member of the Newark Board of Health until 1917, when the commission form of government was adopted.

Resolutions Adopted by the Academy of Medicine of Northern New Jersey

The Academy has suffered an irreparable loss in the passing of the late Secretary Emeritus, Dr. Emanuel D. Newman, whose life and activity was centered largely in this organization. He served as Secretary for 16 years, at which time, as his health began to fail, he was prevailed upon to become Secretary Emeritus. Dr. Newman was known, respected and admired throughout New Jersey. He had practiced in the City of Newark for 47 years after graduation from the College of Physicians and Surgeons of Columbia University, in 1885. He was engaged in the specialty of Dermatology for the greater portion of his professional career. At the culmination of 45 years in practice he was tendered a "Dinner", at which his associates praised and honored him with sincere admiration. Dr. Newman leaves a heritage of honor and ethics to the profession of which he was so proud. At the funeral services many of the leading professional men of Essex County paid him homage; a most fitting tribute to an active professional career. The Academy will miss his counsel, and his fellowship. Mrs. Sarah W. Newman, 4 brothers and 3 sisters are his survivors. (See resolutions in the Obituary Section of this Journal.)

Dr. Eagleton, at the October Stated Meeting, paid a very fitting tribute to the work that Dr. E. D. Newman had done for the Academy and referred to the Academy as—"Dr. Newman's baby".

Resolutions passed by the Academy of Medicine of Northern New Jersey:

Whereas, Dr. Emanuel D. Newman, a physician of our city for 45 years; a leader in his chosen profession; honest in his beliefs and conscientious in his duties; capable in his work, loved by many and hated by none; has given his devotion, his services and his constructive ability to the Academy of Medicine of Northern New Jersey during its formative period, and has been a leader in its development during the past 21 years; giving of his time, his thought and his energy unstintedly to make it a leading and outstanding institution in New Jersey;

NEWMAN, Emanuel D., a well-known dermatologist, died the morning of November 4, at 9.30 o'clock at his home, 81 New Street, Newark, after a lingering illness.

Be It Resolved, that we, the President, Ex-Presidents, officers and Council, of the Academy of Medicine, with due cognizance of his services, have this resolution spread upon our Minutes as an expression of our great sorrow and feeling of deep loss; and that we submit to his bereaved wife and family, our most sincere sympathy and condolence on his death; and

Be It Further Resolved, that a copy of these resolutions be engraved and forwarded to his wife.

CUSHIER, Elizabeth, one of the oldest women physicians in the United States and for many years Professor of Obstetrics in the Medical College of the New York Infirmary for Women and Children, died Wednesday, September 11, at the age of 94, at the home of her niece, Dr. Elizabeth Mercelis, with whom she lived at 17 Plymouth Street, Montclair.

For 25 years New York knew Dr. Cushier as one of its most prominent women physicians and surgeons. She was intimately associated with the late Dr. Emily Blackwell, one of the pioneers of medical education among women.

Born in Jamaica, Long Island, the daughter of John H. and Martha Lumley Cushier, who had come to this country from England, Dr. Cushier was graduated from the Medical College of the New York Infirmary for Women and Children and after studying in Zurich and Vienna returned to New York and became House Physician at the Infirmary. Later she was attending Surgeon. She retired in 1900.

PLYLE, William L., died at his residence, 678 Bergen Avenue, Jersey City, Saturday, November 19, at the age of 67 years and after an illness of nearly 2 years' duration.

Dr. Pyle was born in Gum Tree, Chester County, Pennsylvania, a member of an old Pennsylvania family whose forbears accompanied William Penn to this continent. Son of the late William H. and Anna Taylor Pyle, he attended Chester County schools, the Pennsylvania State Normal School at West Chester, and the Medical School of the University of Pennsylvania. He established general practice in Jersey City after his graduation from the university in 1887, practicing here for 45 years, 38 of them from an office at his Bergen Avenue home.

He served on the staffs of Christ, St. Francis' and Fairmount Hospitals, and was a member of the American Medical Association, the state and county medical societies, and the Practitioners' and Machaon Clubs. He was also a member of Amity Lodge 103, F. and A. M.; the Carteret Club, the Men's Club of Old Bergen Church, and the Chamber of Commerce, while he was for a number of years a Director of the Trust Company of New Jersey and a member of its Executive Committee.

In 1890 he married Louise Apgar, who survives, as do 2 daughters, Mrs. Eleanore Pyle Moore and Mrs. Lloyd Adams; a son, Dr. Louis A. Pyle; 4 sisters, Mrs. Isaac Martin, of Rochester; Mrs. Arthur Tomlinson, of Swarthmore; Mrs. Harvey Fronfield, of Media, Pennsylvania, and Mrs. David Davoll, of East Orange, and 2 nephews, Dr. Wallace Pyle and Dr. Edwin Pyle, of Bridgeport, Conn.

He was a brother of the late Dr. E. W. Pyle, who died in 1902, and an uncle of the late Dr. Weldon Pyle.

Resolutions Adopted by the Monmouth County Medical Society, on the Death of Drs. Applegate and Anderson

Whereas, under the dispensation of Divine Providence there has been removed from our midst our fellow-member Asher T. Applegate, M.D., of Englishtown, a distinguished member of the medical fraternity, and the oldest physician in active practice in Monmouth County;

Be It Resolved that we, his colleagues, record our deep sense of loss in his removal, not only to the medical fraternity, but to the community which he so long and joyfully served; and

Be It Further Resolved that a copy of this resolution be spread upon the minutes of this society.

J. C. Clayton
Harvey S. Brown
W. H. Fairbanks

Whereas, under the dispensation of Divine Providence there has been removed from our midst William Anderson, M.D., of Englishtown, a fellow practitioner and member of this society for many years;

Be It Resolved that we express our deep sense of loss in his removal as a member of this society; and

Be It Further Resolved that a copy of this resolution be placed upon the minutes of this society.

J. C. Clayton
Harvey S. Brown
W. H. Fairbanks

Resolutions on the Death of Dr. Davenport, Passed by Passaic County Medical Society

In the death of Dr. George S. Davenport, 61 Passaic Avenue, Passaic, New Jersey, the Passaic County Medical Society and the Medical Profession have sustained an irreparable loss, and the community at large a useful and outstanding citizen.

He was born in Sussex County, New Jersey, graduated from Ann Harbor, Michigan, in 1892, and practiced medicine in this community for 41 years, as a true physician, a man of exceptional ability, who represented the highest ideals and traditions of his profession. His life was a fine and beautiful exemplification of service to suffering humanity. To those who knew him and loved him, his example was a source of encouragement and inspiration, and while his death is a serious blow to his medical colleagues and leaves a gap which will not be easily filled, his memory will help us to bear the burden and to "carry on". A great and true soul has passed on, and a text from the Scriptures—"Greater love hath no man than this, that a man lay down his life for his friends" may well be applied to George S. Davenport.

Therefore, Be It Resolved that this Society mourns the loss of a highly respected brother, and extends to his family heartfelt sympathy in this, their hour of bereavement; and

Be It Further Resolved that a copy be placed in full upon the Minutes of this Society, published in the daily papers, and a copy sent to his family.

John M. Ryan
Percy H. Terhune
H. Ward Van Riper
Arthur H. Temple
Fred Vosburgh

OFFICIAL TRANSACTIONS

166th Annual Meeting of the Medical Society of New Jersey

Held at Haddon Hall, Atlantic City, June 15, 16, 17, 1932

HOUSE OF DELEGATES

Wednesday Morning Session

June 15, 1932

The opening session of the House of Delegates of the Medical Society of New Jersey met in the Viking Room, Haddon Hall, Atlantic City, New Jersey, at 10.15 a. m., June 15, 1932, with Dr. John F. Hagerty, President of the Society, in the chair.

President Hagerty: The meeting will please come to order. We have waited a half-hour because there was some discrepancy between the meeting time as announced in the Journal and that in the Official Program.

It now becomes my privilege, gentlemen, to declare the 166th Annual Session of the House of Delegates open for the transaction of business.

I may be permitted to say first, however, that I appreciate the honor of presiding over the deliberations of a body like this, which has the interests of more than 2800 members of the medical profession in the state of New Jersey at heart, and while I cannot claim to be a master in parliamentary law, I shall endeavor to be fair and courteous to every member of the Society; and, with your kindly help and indulgence, I trust the meeting will go over pleasantly and satisfactorily to all.

I think that most of you have become familiar by this time with our *Scientific Exhibit*. It is a feature of this meeting, of which we will all, I hope, feel very proud. Starting off with some doubt of success, it has grown beyond our expectations, and we have had to take over some rooms that had been assigned to other section work. I hope the members of those sections will not find very great fault with this change in the plans, but we had to find more space here for the Scientific Exhibit, and the meetings of the School Physicians, and of the Section on Radiology, will be held on the first floor, instead of this floor.

We shall now proceed with the regular order of business, which is the Report of the Committee on Credentials.

Secretary Morrison: Dr. Carrington is not here, but I can say for him that $\frac{1}{2}$ hr. ago

the registration was 195. I suppose it is 225 by this time, which is ahead of last year's registration at the same hour.

President Hagerty: The next order of business is the Reading of the Minutes of the Annual Meeting of 1931.

Secretary Morrison: Inasmuch as they have been published in full in the Transactions, I move that they be accepted as printed.

The motion was regularly seconded, put to a vote, and carried.

President Hagerty: The next order of business is the Report of the Committee on Program and Arrangements.

Dr. William D. Olmstead: I am very sorry to report that Dr. Reddan, the Chairman of our Committee, is still disabled by illness and unable to be present at this meeting. We desire to report, very briefly, that we have tried to make all the necessary arrangements and to coöperate fully with all the Section officers, as well as to give as much room as possible for the Scientific Exhibit, which, as our President has just mentioned, has really over-run the thirteenth floor.

We are unable, at this time, to give a detailed report of our financial activities; that part of our report is always made at the end of the meeting and submitted to the Treasurer and to the Board of Trustees, and is later published in the Journal. We can say, in a general way, that in spite of economic conditions prevailing this year, we will be able to run the meeting with practically no cost to the Society, just as we have done in the past.

One feature we desire to mention especially, is the Dinner Dance arranged for tomorrow night, June 16, at 7.30 p. m., in the Rutland Room. Dr. Hagerty has asked us to attempt to make it the social feature of the meeting, and we ask your assistance toward that end.

President Hagerty: You have heard the Report of the Committee on Program and Arrangements. What is your pleasure?

It was regularly moved and seconded that the report be accepted, and the motion, put to a vote, was carried.

President Hagerty: We shall now have the

Report of the Committee on Scientific Work, Dr. Hollinshed.

Dr. Hollinshed: There are 3 matters I wish to speak about, which did not appear in the Preliminary Report which appeared in the May Journal. The first is, that I wish to speak about, and give credit to, Dr. Henry B. Orton for his assistance in arranging the Symposium on Diseases of the Upper Respiratory Tract. This was overlooked when writing our first report.

The second matter is—that the appearance in the Scientific Program, of the sound-motion picture called “Experimental Gastro-enterostomy”, and the sound-motion picture entitled “Suspension of the Uterus for Retro Displacements”, both by courtesy of the Petrolagar Laboratories, is in opposition to the wishes of the Committee on Scientific Program.

The third matter is—that all persons presenting papers, who have slides or pictures to show, accompanying their papers, will please have the slides here, in the hands of the lantern-man, before the session in which they are to be presented.

President Hagerty: I may say, in addition to what Dr. Hollinshed has said about exhibition of the sound-motion picture, I, too, have pointed out to the Chairman of the Committee on Arrangements the impropriety of having them during the time of the Scientific Program, but since they are to be shown at the close of the sessions, there need be no interference with speakers presenting their prepared papers. Since they do not fit in very well with the type of papers being presented and discussed, they stand as they are here in the program, but they will be shown at the close of the session programs.

You have heard the Report of the Committee on Scientific Work. What is your pleasure?

It was regularly moved and seconded that the report be accepted, and when put to a vote that motion was carried.

President Hagerty: The President will announce the formation of the Business Committee, as follows: Drs. W. Blair Stewart, Chairman; D. L. Haggerty, W. G. Schauffler, John Nevin, and J. H. Lowrey.

Next, is the Report of the Committee on Revision of the Constitution and By-Laws, Dr. Quigley.

Dr. Frederic J. Quigley: Mr. President, it is now 3 years since the Constitution and By-Laws were completely revised and it was the feeling, upon the adoption of that revision, that opportunity should be given for the new Constitution and By-Laws to settle into place before presenting any new amendments,

except in the instance of something coming up which seemed to be of vital importance.

Before proceeding with the formal report, I would like to say a word about these copies. With consent of the other members of this committee, I prepared a report, a copy of which I presume most of you have in your hands, and which shows, almost at a glance, those portions of the Constitution and of the By-Laws which the Committee proposes to you as *deletions*, to be stricken out, and the “underscored” material, as *new* phraseology.

In your copy, I should like to ask you to take a pencil and make one correction, in the third item of the By-Laws. Through inadvertency, in the second line, there were 3 words left out after the word “of”. It should read: “evidence of the right of members to register”. Will you make that note in the third item, Section 2, second line?

Where, in this printed copy, you see a series of *dots* running out, with a period after, it means that the rest of that sentence or paragraph remains unchanged. Now, if this be considered along with your copy of our recently published Constitution and By-Laws, I think you will be able to follow the proposed changes without difficulty.

So, Mr. President, the Committee on Constitution and By-Laws recommends the following amendments to the Constitution, to be accomplished in conformity with Article XIII of the Constitution.

CONSTITUTION

(1) ARTICLE IV. Section 1. (p. 6). Strike out the entire wording and substitute:

“This Society shall be composed of Fellows, Officers, Delegates, and Members of Component Societies in good standing.” I might remark, here, that this change is in conformity with the exact wording that was suggested to the Committee by Mr. Wall, Counsel to the State Society, as a result of the adjustment of what we thought were insurmountable difficulties between the Charter and the Constitution, which were ironed out last year.

President Hagerty: Let's adopt these as we go along.

Dr. Quigley: My thought was, Mr. President, to complete these articles.

Secretary Morrison: They must be adopted article by article.

Dr. Quigley: We are only making a Committee report now, and I think it would be better to run through that and consider action on the articles afterward.

President Hagerty: All right.

Dr. Quigley: (2) ARTICLE IV. Section 3, paragraph c. (p. 7.) Strike out the entire sub-

section. I would suggest that if, as we go along, there are any amendments or corrections to offer, or questions to be asked, we make note of them, so that they can be taken care of later.

(3) ARTICLE IV. Section 3 (d), (p. 8). Strike out the word "a" in the second line. I might say that a considerable number of these changes are merely for the purpose of clarification.

(4) ARTICLE IV. Section 3 (d) and (e), (p. 8). Change to sub-sections (c) and (d) respectively.

(5) ARTICLE IV. Section 3 (f), (p. 8). Strike out the word "his" (last line on p. 8, last word) and substitute the word "an". The purpose of this proposal is to make it clear that *any alternate* may take the place of *any delegate* who is unable to attend, rather than requiring a *particular alternate* for each delegate.

(6) ARTICLE IV. Section 4 (p. 9). Strike out entire wording and substitute: "All Members of Component Societies in good standing are hereby constituted members of this Society, and entitled to participate in all the privileges of general and scientific sessions." This new wording is also in conformity with Mr. Wall's suggestion; in fact, he phrased it exactly this way.

(7) ARTICLE VI. (p. 10, first line). Strike out the words "three (3)", and substitute "President-elect and two (2)". I might pause for a moment to say that the Committee, almost from the time that the last revision was adopted, has felt that when the time should come to propose amendments, some one would suggest to the House of Delegates that, instead of having 3 Vice-Presidents, as at present, we should have a President-Elect and 2 Vice-Presidents, which seems to be in conformity with the tendency in most medical organizations.

(8) ARTICLE VIII. Sec. 2 (p. 10). After the word "Delegates" (first line of section) and before the word "may", insert the words "or the Board of Trustees". The purpose of that is, that if it becomes apparent, during the middle of any year, that it is advisable to create a new Section, that could be done by the Board of Trustees, giving that body equal authority with the House of Delegates to do so.

(9) ARTICLE IX. Section 2 (p. 11). Strike out the numeral "3" (fifth line of section) and substitute "President-Elect and two (2)".

(10) ARTICLE IX. Section 2 (p. 11). At the end of the first sentence, replace the period with a comma, and add the following: "except that the President-Elect shall succeed to

the office of President without process of nomination and election."

With respect to this proposal, I would like to say that, while the entire Committee agreed to this, the suggestion, or proposal, did not emanate from me.

Respectfully submitted,

Signed: Frederic J. Quigley,
Chairman

J. Bennett Morrison
George H. Lathrope.

Mr. President, I think this constitutes a "first reading", and there is no necessity for going over these—Article by Article—unless somebody wishes to propose an amendment to the Committee Report, or some part of it, because, having now been read, it will simply lay over until next year for action.

President Hagerty: You have heard the reading of this report from the Committee on Constitution and By-Laws. What is your pleasure?

It was regularly voted that the report be accepted.

Dr. Quigley: The Committee on Constitution and By-Laws now recommends the following amendments to the By-Laws; to be accomplished in conformity with Chapter XV of the By-Laws:

BY-LAWS

(1) Chapter 1. Section 1 (p. 12). Strike out entire wording and substitute:

"The Fellows and Officers of, and all the elected Delegates to, the Medical Society of New Jersey, and the Members of Component Societies in good standing, are *Members* of this Society. Honorary Members are entitled to the rights given them by the Constitution."

This wording also was furnished by the Counsel of the State Society, and the import of it is, that, in the old Constitution and By-Laws, members of component societies were sort of "step-children" of the Society, because of the fact that we felt, under the interpretation given by a former Counsel, that *only* the Officers, Delegates and Fellows were members of the corporate body. The interpretation made by Mr. Wall, Counsel to the Society last year, is that, in addition to the Officers, Delegates, and Fellows, *all Members of Component Societies in good standing* are Members of this Society.

(2) Chapter 1. Section 2 (b), (p. 13). After the words "alternates to this Society", and before the words "members elected", *insert* the words—"complete list of Associate Mem-

bers". The reason for this will become apparent through the reading of a later proposed amendment.

(3) Chapter 1. Section 2 (d). (p. 13). Replace the period at the end of this subsection with a semicolon and add:

"except that after the Official List is printed any component society which finds that it is entitled to additional delegates and alternates may elect them at its April or May meeting."

(4) Chapter III. Section 1. (p. 15). Delete second sentence entirely, lines 4-10: "The general meetings . . . , Vice-Presidents"; then substitute:

"The general meetings shall be for presentation of the addresses of the President and President-Elect, orations by invited guests, and scientific papers and discussions as provided for in the official program; these meetings shall be presided over by the President, President-Elect or one of the Vice-Presidents."

(5) Chapter III. Section 4. (p. 16). After the comma following the word "President" at the end of the second line, insert the words "President-Elect".

(6) Chapter V. Section 1. Twentieth line. (p. 18). Strike out the words "so elected by" and substitute the word "of". The reason for that is, that the Fellows' representative on the Nominating Committee is usually the immediate Past-President. If he is unable to serve, then the Fellows elect a member; so, instead of being the elected member, it becomes "the representative of".

(7) Same Section. Make all but the last sentence of this Section, Sec. 1. (a). I call your particular attention to this item, and also to Item 9, because there is a *minority report* to be made with respect to these.

Continuing with Item 7: Strike out entire final sentence of this Section beginning, "This committee shall meet . . ." etc., and add 2 new sub-sections as follows:

"(b). This committee shall meet on a date in March sufficiently early for its report to be published in the April number of the Journal, and it shall report in that number of the Journal the result of its deliberations in the form of a ticket containing nominations for each office to be filled, including trustees, elective committees, councilors, delegates to the American Medical Association and to other medical organizations."

"(c). The membership of the Nominating Committee, by name and county, together with this full section of the By-Laws, shall be advertised in at least one number of the Journal not later than the January issue."

(8) Chapter V. Section 2 (f) (p. 20).

(This is merely for the purpose of clarification.)

Add, at the end of this Section, the following:

"(Section 2, Chap. V.)"

This Section has, I think, 5 sub-sections and perhaps it might not be quite so clear as it should be by merely saying that this section shall be read, and so forth.

(9) Chapter V. Section 4. (p. 20). Strike out entire Section and substitute the following:

"Candidates other than those offered by the Nominating Committee, may be nominated for any or each office; *provided* that such nominations are proposed by at least fifteen (15) members of this Society, who number at least five (5) from each of at least three (3) different component societies; and *provided further* that such other nominations are made in time to be published in the May issue of the Journal."

"No nominations whatever may be made after the time of going to press of the May Journal: except *that* in the event of death or otherwise inability of any candidate to serve which arises before the election is held substitution shall be made at the earliest feasible date, and if possible published in a number of the Journal issued prior to the Annual Meeting."

(10) Chapter VI. Section 2. (p. 21). Strike out entire wording and substitute:

"The President-Elect and the Vice-Presidents shall assist the President in the discharge of his duties, and in his absence or disability the President-Elect or the ranking Vice-President, shall preside at all meetings of the Society and of the House of Delegates, and perform all duties pertaining to the office. In case of a vacancy in the office of President, by death, resignation, or removal, the President-Elect, and in his absence, the ranking Vice-President, shall perform all duties pertaining to that office until the vacancy is filled by appointment of the Board of Trustees."

(11) Chapter VII. Section 6. (p. 27). At the end of first sentence, line 6 of the Section, replace the period with a semicolon and add the following:

"and shall conduct, at least once a year, a joint meeting of the Delegates and Alternates of the Component Societies of his district."

(12) Chapter VIII. Section 10. (p. 31). After the comma following the word "members", line 3 of the Section, insert the words "or appointed annually". This was an oversight in the draft made 3 years ago. The intention, of course, was to appoint the members of the Welfare Committee annually, as has been done, but we left that out through inadvertence.

(13) Chapter IX. Sec. 2 (a) (top line p.

35). Change the word "one-half" to "one-quarter". I think that is pretty plain. Members who are taken into component societies after October, instead of paying one-half of the dues for that year would pay only for one quarter. That has been asked for by 2 or 3 component societies.

(14) Chapter X. Sec. 3 (a). (6th line p. 37). Replace semicolon after the word "society" with a period and delete remaining sentence, beginning with the word "provided" The reason for that you will see in a moment. We have taken that Section out and put it in a proposed amendment which I will read to you in a moment.

(15) Chapter X. Section 3. (p. 37). Add new sub-section (c) to read as follows (I might say that this sub-section is proposed in response to requests from 2 of the component societies—Hudson and Essex—and conforms quite a bit, with action taken by at least 3 other component societies—I think Mercer, Passaic, and Bergen—with respect to *Associate or Junior Members*):

"Each component society, as a requisite of eligibility to active membership, may require applicants to serve a probationary period of not longer than two (2) years in the society as Associate Members. Associate members shall have such privileges in component societies as the constitution and by-laws of the respective societies may provide; except the right to vote and hold office. Their dues shall be those fixed by their respective component society, plus the subscription price of the Journal as determined by the Board of Trustees."

(16) Chapter X. Section 6. (p. 38). Replace period at end of the present Section with a semicolon and add the following:

"provided that no physician may be a member of two (2) component societies at the same time, nor of this Society and another State Society."

That concludes the proposed amendments. We have an Item 17 with respect to the proposal made by the Conference of County Society Secretaries and Reporters, requesting consideration of the idea of making Reporters, by reason of being reporters of component societies, Delegates to this Society.

(17) In re the suggestion from the Conference of Secretaries and Reporters, that Reporters be made *ex-officio* members of the House of Delegates, this Committee is not in favor of this proposition, but recommends that the component societies elect their reporters among their regular delegates, if they desire to have them in that rôle.

Respectfully submitted,

Signed: J. B. Morrison

George H. Lathrope.

The undersigned agrees to this report *except* items 7 and 9, for which a minority report will be submitted.

Signed: Frederic J. Quigley.

If there is no objection, Mr. President, I will read the Minority Report, or the views of the minority.

"The undersigned, constituting the minority of the Committee on Constitution and By-Laws, recommends, as a substitute for items 7 and 9 in the Committee (majority) Report, the following:

"Amend By-Laws as follows:

(If you have the By-Laws there, might I suggest that you turn to page 18, Chapter 5, Section 1.)

"At the beginning of the last paragraph of this Section, strike out the following words: "This Committee shall meet at the close of the afternoon session on the first day' . . . and substitute:

"This committee shall meet in the evening of the first day' . . .

Item 2. Chapter V. Section 1. (p. 18).

"Change 'Sec. 1' to 'Sec. 1 (a).'

"Item 3. Chapter V. Section 1 (p. 18).

"Add a new sub-section (b) as follows:

"The complete membership of the Nominating Committee by name and county, shall be advertised in the March issue of the Journal."

"Item 4. By resolution of the House of Delegates: Permit advertising, in the March issue of the Journal, of the names of members who have been endorsed by their respective component society as candidates for office in this Society.

"Signed: Frederic J. Quigley."

President Hagerty: You have heard the further Report of the Committee on Constitution and By-Laws.

Dr. Snedecor: I move the consideration of this report on the By-Laws, item by item.

The motion was regularly seconded, was put to a vote, and was carried.

Dr. Quigley: *By-Laws*. (1) Chapter I. Sec. 1. (p. 12). Strike out entire wording and substitute:

"The Fellows and Officers of, and all the elected Delegates to, the Medical Society of New Jersey and the Members of component societies in good standing are members of this Society. Honorary Members are entitled to the rights given them by the Constitution."

Secretary Morrison: I move its adoption.

The motion was regularly seconded, put to vote, and carried.

Dr. Quigley: (2) Sec. 2 (b). (p. 13). After the words "alternates to this Society", and before the words "members elected" insert the words "complete list of Associate Members".

Secretary Morrison: I move its adoption.

The motion was regularly seconded, put to vote, and carried.

Dr. Quigley: (3) Sec. 2 (d). (p. 13). Replace the period at the end of this sub-section with a semicolon and add:

"except that after the Official List is printed any component society which finds that it is entitled to additional delegates and alternates may elect these at their April or May meeting."

It was regularly moved and seconded that this section (2-d) be adopted, and the motion, put to a vote, was carried.

Dr. Quigley: (4) Chap. III. Sec. 1. (p. 15). Delete second sentence entire, lines 4-10: "The general meetings . . . Vice-Presidents" and substitute:

"The general meetings shall be for presentation of the addresses of the President and President-Elect, orations by invited guests, and scientific papers and discussions as provided for in the official program; these meetings shall be presided over by the President, President-Elect or one of the Vice-Presidents."

Dr. Elias J. Marsh: This brings before us one question that I should like to inquire about, the purpose of it, and that is the creation of another office—that of President-Elect. My information (I may be mistaken) is that some years ago, the gentleman who was elected President of the American Medical Association was not present at the meeting, and as he could not be installed at the proper time, he was carried for a year as the President-Elect, and since that time the association has continued the habit of carrying the President-Elect. It seems to me, he is a superfluous official to carry regularly.

We have got along for a great many years with 3 Vice-Presidents, the first one being, practically, according to our custom, President-Elect, and I do not see why that plan should not continue. I have enough confidence in this Society, in its age, its dignity, and its interest, to believe that we can get along without copying mistakes (for that is the way it looks to me) of the American Medical Association, made under those circumstances.

Then, Mr. President, there is another point. I think it may be a practical mistake to commit ourselves, a year in advance, to the election of a President without retaining the possibility of reviewing his acceptability. Accord-

ing to the provision read here a moment ago, he would succeed to the presidency automatically. As a rule, the First Vice-President will become President, without anything but the form of election, but I think we should not take from ourselves the right or the power of reconsidering his advancement if we choose.

Some years ago we did that very thing, whether wisely or unwisely is not now the point. Personally, I think it was a mistake, and I think we should retain the power of even making a mistake if we choose, and I would suggest that the entire reference to "President-Elect" be left out, and that we continue, as at present, with 3 Vice-Presidents.

President Hagerty: Do I hear a motion for approval of the section as read?

Dr. Quigley: I move that it be approved as read.

The motion was seconded.

Secretary Morrison: Speaking for the Committee, we have hoped that in the future the office of Third Vice-President will be made a much more important one in the Medical Society of New Jersey than it has been in the past. The Committee hopes that the Third Vice-President will be used by the President to relieve himself of part of the onerous work of the presidency.

The office of President, like that of the Secretary, has become pretty nearly a full-time job, and the amount of time, effort and work devoted to it is enormous. We have considered whether the Third Vice-President might be used as a substitute, to visit, perhaps, 1/3 of the County Societies at stated meeting and be invited to attend meetings of the Welfare Committee so as to become more conversant with all the business and problems of the Society; so that the office of Third Vice-President would be far more important than it has been in the past, and the incumbent would be training for service as President.

The plan of having a President-Elect, has been adopted as a policy by several other state societies. In the New York State Society the President-Elect shares in the work of the President and is thus trained as his successor. Dr. Ross, a recent President of the New York State Medical Society, traveled, I believe, some 34,000 miles as President-Elect and President, and when a man has done all that work and received all that recognition by the Society, he is ready to go on to the higher office without further election.

There is a provision in the Constitution covering the objection that Dr. Marsh has made. If there is dereliction in duty, or moral or ethical reason for the man to be considered

not worthy of being made President, the Constitution provides for his treatment.

Dr. Frank W. Pinneo: I am going to speak for Essex County in favor of the amendment as suggested. We act as Delegates from our County Society, under the instructions, that the procedure hitherto followed and time-honored, in the procession of Vice-Presidents shall be followed. It did not specify about calling the First Vice-President President-Elect, but I am sure that the spirit of this will follow the instruction that we do follow the precedent, so honored in the procedure of the Vice-President; therefore, the calling of the First Vice-President hereafter President-Elect is what we are doing except in name, and it seems to me favorable.

Dr. Stahl: I can't see that it makes any difference in the function of the man whether he is called President-Elect or Vice-President, and it seems to me that, so long as it has worked pretty well, why not leave it alone?

The question was called for. The motion was put to a vote and was carried.

Dr. Quigley: (5) Chapter III. Sec. 4. (p. 16). After the comma following the word "President", end of second line, insert words "President-Elect,".

Secretary Morrison: I move its adoption.

The motion was regularly seconded, put to vote, and carried.

Dr. Quigley: (6) Chapter V. Sec. 1. (p. 18). Twentieth line strike out the words "so elected by" and substitute the word "of". I have explained the use of that.

It was regularly moved and seconded that the Section, as read, be approved, and the motion was put to vote and carried.

Dr. Quigley: Mr. President, if there is no objection, I would suggest considering Items 7 and 9 together, and for the moment take up Item 8. We can consider 7 and 9 after that, because they dovetail.

(8) Chapter V. Sec. 2 (f) (p. 20). Add at the end of this Section the following: "(Section 2 Chapter V.)." That makes a proper reference to the Section we are speaking of.

It was regularly moved and seconded that the Section be approved as read, and the motion was carried.

Dr. Quigley: (7) Chapter V. Sec. 1. (p. 18). Make all but the last sentence of this Section—Sec. 1. (a). Strike out entire final sentence of this Section, beginning "This committee shall meet . . .", etc., and add 2 new sub-sections as follows:

"(b). This committee shall meet on a date in March sufficiently early for its report to be published in the April number of the Jour-

nal, and it shall report in that number of the Journal the result of its deliberations in the form of a ticket containing nominations for each office to be filled, including Trustees, elective committees, Councilors, Delegates to the American Medical Association and to other medical organizations."

"(c). The membership of the Nominating Committee, by name and county, together with this full section of the By-Laws, shall be advertised in at least one (1) number of the Journal not later than the January issue."

(9) Strike out entire present Section 4, of Chapter V, p. 20, and substitute the following:

"Candidates other than those offered by the Nominating Committee, may be nominated for any or each office; *provided* that such nominations are proposed by at least fifteen (15) members of this Society, who number at least five (5) from each of at least three (3) different component societies; and *provided* further that such other nominations are made in time to be published in the May issue of the Journal."

"No nominations whatever may be made after the time of going to press of the May Journal; except *that* in the event of death or otherwise inability of any candidate to serve, which arises before the election is held, substitution shall be made at the earliest feasible date, and if possible published in a number of the Journal issued prior to the Annual Meeting."

Now, Mr. President, I would like to say that this proposal came before our Committee 2 weeks ago today, as suggested by Dr. Lathrope, who, unfortunately, will not be at the meeting. I have a letter from him, and inasmuch as Dr. Morrison is in hearty accord with his views, with respect to this proposed amendment, I think perhaps it might be better, if the Chair will permit, for Dr. Morrison to read this letter, addressed to me, as Chairman of the Committee, from Dr. Lathrope, and to supplement it with whatever arguments he has, and then permit me to give arguments in opposition to these 2 proposals.

President Hagerty: Hearing no objections from the floor, the Chair will allow that procedure.

Secretary Morrison: The letter from Dr. Lathrope is as follows:

"June 2, 1932.

Dear Dr. Quigley:

At the present writing it seems very uncertain that I shall be present at the Annual Meeting. If you and Dr. Morrison feel that it is of any benefit to have my views expressed in regard to the proposed alteration in the Nominating Committee procedure, this letter might be employed to that end. I suggest this because the opinion of the Committee is not at the moment entirely unanimous on the matter. I might remark, parenthetically, that whoever picked this committee in the first place had a yen for individualism, for its debates are invariably un-unanimous, whatever its final decisions may be.

This amendment is offered to obviate certain discomforts and disadvantages which arise out of our present nominating and election machinery, and to suggest a plan which it is hoped would tend, if adopted, to give us a smoother and more democratic selection of candidates for office.

Objection to the present method may be summarized thus:

(1) Selection of candidates for office is now accomplished at a meeting held at 5 p. m. after a long tiring day in the business session. Everyone wants to get out on the Board Walk, get the air, and "look 'em over" before dinner. The result is a moderately dignified process in the selection of the candidate for Third Vice-President, and after that a scramble to get through with the candidates for the minor offices and committees—a scramble, which is apt to be unthoughtful, undignified, and subversive, or at least neglectful, of the best interests of the Society.

(2) Next, the candidates are not *officially* announced until the time for balloting. If any member does not like the ticket, in whole or in part, he has to do some very quick thinking and quick acting to place an opposition candidate before the House. This is just the procedure which lends itself to railroadng, and, as a procedure, is thoroughly undemocratic, because no one of the rank and file of the Society membership has had opportunity for due consideration or discussion of the entire ticket.

(3) The committee meeting, being hastily organized during the bustle and excitement of an Annual Meeting, and having a very limited time at its disposal to work out its problems, cannot work them out with the requisite deliberation, especially over minor offices and committees; which, I submit, are of as much importance on the whole as the choice of a Third Vice President, and are entitled to thought as to past record of existing incumbents, and probable value to the Society of new material.

(4) Harassment of individual committee members by wire pullers, and this and that clique, under the present system, is at a maximum. The committee is open to, and the general meeting as a whole distracted by, political maneuvering and partisan importunity.

The proposed amendment is suggested as *tending* to obviate some, if not most, of these disadvantages.

(1) It places the meeting of the Committee at a time and place all its own; and thus gives it more time, more quiet, and above all, more dignity. Anyone who has served on both the Nominating Committee and the Welfare Committee, as I have done, will agree with me in this, I feel sure. The meetings of the latter committee at Trenton, at 3 o'clock of a Sunday afternoon, are well attended, earnest over the smallest detail, business-like throughout, and dignified. Give the Nominating Committee the same opportunity for service. It is the most important single committee meeting of this Society—*bar none*.

(2) The candidates will be officially announced long before the Annual Meeting. Every member of each component society will know the ticket if he reads his Journal. Component societies can freely discuss the ticket, have ample opportunity to place opposing candidates in the field, and when the time comes for balloting in the Annual Meeting, this, the most important of all the functions of that meeting, will be carried out in an intelligent manner by every member of the Society who reads his Journal. I submit that this is infinitely more democratic than the present system, and

gives the rank and file a much larger potential voice in the affairs of the Society.

(3) It will free the Annual Meeting of much of the intrigue and politics which clutter all the "back-stairs" of that assemblage under the present system.

(4) The objection has been raised that this suggestion gives to any officer of the Society, who does considerable visiting to component societies, and who is so minded, an excellent opportunity to pull wires—while no one else has, without extraordinary effort, an equal chance. That is true; but I feel that any officer of this Society, who demeaned himself to electioneer under such circumstances, should be subject to reproof and liable to removal from office; and I have faith that the sense of decorum of the Society would agree in this. I suggest no penalty in this regard—I am quite willing to leave the judgment and the handling of any such hypothetical conduct under such a system to the feelings of resentment which it would surely arouse.

I believe that in this suggested amendment there lies an opportunity for more direct dealing in our affairs, and for a broader democratization of our machinery.

I have served in times past on the Nominating Committee, and I have talked this matter over with present members of that committee, who agree with me. My criticism is not of the committee; its composition is of a high grade. It is a criticism of the manner in which we make them do their work—a method which is careless of their dignity and of our own welfare, and one which inevitably forces them into hurried work over important matters.

Very sincerely yours,

George H. Lathrope, M.D."

Dr. Quigley: Might I suggest that a motion be made to adopt Sections 7 and 9, so it will be open for discussion?

It was regularly moved and seconded that Sections 7 and 9 be approved as read.

Secretary Morrison: Now, if I may continue, I will say that the sentiments expressed by Dr. Lathrope embody my own. We suggest that the names of members comprising the Nominating Committee be published in January. The minority report, handed to you a moment ago, suggests that it be done in March. We believe that the names of all members of the Nominating Committee should be in the hands of the State Society's membership as early as possible, so that those members, in Judicial Districts, or in County Societies, may be able to approach members of the Nominating Committee, as they should, in favor of men in their own particular neighborhood who they believe should be honored by election to office in this Society.

The proposed method of having the Nominating Committee meet at least 2 months in advance of the Annual Meeting removes the committee meeting, as Dr. Lathrope has said, from the wire-pulling, and excitement, and lack of time for due consideration, which is usually at 5 o'clock in the afternoon after a

meeting of the House of Delegates. It would give them an afternoon to themselves so that they could, in a quiet, dignified manner, think over all the material at hand for selections of officers and surely would provide a much better ticket; it would, potentially, at least.

Dr. Quigley: I should like to say to the members of the House, just in simple fairness to Dr. Lathrope, that he has been, and is, a valued member of this Committee, to whose suggestions and opinions I am sure his colleagues on the Committee have always given the most careful consideration, because, usually, when he proposes anything, he has looked it over fairly and carefully himself. I am satisfied that the proposal he makes, he very sincerely feels would be beneficial; but, the minority feels absolutely to the contrary.

The 2 main features in this proposal are as follows: First, that it would take the Nominating Committee away from the State Society's meeting and have its own meeting held 60 days prior to the Annual Meeting. Secondly, that it would preclude nominations from the floor.

Let us consider the first proposal. Certainly, no one can contend that by holding this meeting 60 days in advance of the Annual Meeting the members of the Nominating Committee would have any greater knowledge of candidates for office than they would have during the Annual Meeting; in my opinion, they would have less. You must remember also that the Councilor District meetings are beginning to assume importance, for members are getting together and discussing possibilities and relative values of different men in their particular Councilor District. Then, too, at the Annual Meeting, a majority of the active men in the component societies congregate and members of the Nominating Committee have an opportunity to meet these men, to see them, and exchange ideas; so I don't think that any case can be made out for having the Nominating Committee meet in advance of the Annual Meeting.

Then, if that is not so, that proposal resolves itself into this: To take the meeting of the Nominating Committee away from the Annual Meeting, out of this polluted atmosphere, and hold it at another time. Are conditions at the Annual Meeting so bad as to warrant holding it at another time? I know of no other State Society that does this thing. That, of course, is not significant, in one sense, but yet it is significant in another. If all these other State Societies, and the American Medical Association, are able to nominate and elect their officers at their Annual Meetings, it seems that if conditions in our own State Society are so bad as to make that im-

possible, it constitutes a very severe indictment upon the membership of the Society present at these Annual Meetings, and particularly of the House of Delegates.

It must be remembered that while we are the oldest medical society in the United States, we are quite young in democracy. If I might inject a personal note, I have, as one of a group which was not so very large at the beginning, been laboring ever since the World War to democratize this Society, and the present set-up under our Constitution and By-Laws represents, in my opinion, a distinct step forward in democratization. Now, for those men who object, perhaps, to some of the dust that is kicked up by some over-zealous and over-eager Delegates, in behalf of candidates, I am sympathetic toward their point of view, but I think that those things right themselves. Excesses of zeal, methods which are questionable, in the vast majority of cases fail of their purpose.

As to the membership of the Nominating Committee, this is not really a kindergarten class; they have all cut their eye-teeth. They are picked men. They have been picked because of long service in their Component Societies. They are men of discrimination and judgment, and so, the most they can be subjected to here is, perhaps, slight annoyances. On the other hand, I don't subscribe at all to the premise that all wire-pulling, and all (as Dr. Lathrope states it) "back-stairs" talk, is pernicious. To the contrary, it seems to me that the greater part of it has been healthy. I have participated in a considerable number of these conferences and have heard the back-stair gossip, and I have learned a great deal about the men and the policies of this Society. So, I don't really think that there is any need to abolish this plan in so far as the situation is present at this Annual Meeting.

To the second proposal—to take away from the Delegates a right, which is almost an inalienable right, to nominate from the floor—I am absolutely and unalterably opposed. That is absolute and pure democracy, and despite some of the handicaps under the old Constitution and By-Laws, it still remained there. It has never been abused, but its presence is a check which may be utilized at any time.

Let me say another word about some of this dust that is kicked up, perhaps, by some of the Delegates. It is not so many years since the nominations for office were dictated by 1 or 2 Fellows. This is history. The majority of the Fellows were not cognizant of this condition, and I am not saying that the nominations were bad nominations, but I am speaking of a *system* that existed, where 1 or 2 Fellows picked out a candidate and then

suggested his name to their fellow-Fellows, and that went down the line, and, not infrequently, there were more Fellows on the Nominating Committee than there were of other kinds of representatives of county societies. Of course there wasn't quite so much noise around; things were much more quiet and dignified, but the members of the Component Societies were not nominating members for office.

I think there is considerable justice to the point that Dr. Lathrope makes—that the members of the Nominating Committee are tired at the end of the business day—the first day, and that is, perhaps, not the most suitable time for the committee to meet, but I don't agree with his thought—that minor officers are picked out in a hurry. I have served on the Nominating Committee, myself, and I think, if you will just refer to what might be called "minor offices", as distinguished from the line offices, that the composition of the Councilors, and the composition of your 3 elected Standing Committees (Finance, Program and Arrangements, and Publication), contradicts the implication that those officials were selected without careful consideration.

In this substitute report, I recommend that, instead of having the Nominating Committee meet at the end of the business session on the first afternoon, it should meet in the evening of that day; in other words, at the end of the afternoon, the committee members would have an opportunity to go out on the Boardwalk, get recreation, and meet after dinner, perhaps at 8.30 p. m., and take 2-3 hours for deliberate, careful work.

I want now to say a word about how this proposal came, as to publishing the names of the Nominating Committee. At a meeting of our committee 2 weeks ago, after arguments had been made in behalf of the 2 main proposals, I said to the other 2 members, something like this: "Let me give you another side of the picture", (of course I put this as an entirely hypothetic case, as I am doing now, but I used the Secretary as the hypothetic officer because he gets around, visiting the County Societies a great deal). "If you have a Secretary who is politically minded, who is anxious to maintain control, with his opportunities for going around the state, he could do a great deal to advance the candidacy of some man whom he wants, and, on the other hand, he could, by just the lift of an eye-brow, or a slight sneer, or a shrug of the shoulders, when another man's name is mentioned (a potential candidate), do his candidacy a great deal of harm."

It was readily agreed by the 3 members,

therefore, that this idea of having the names of the Nominating Committee published should be advanced. This is not a new idea, for 2 years ago the Councilors of this Society, as a result of some criticism of campaigning at that time, made the recommendation that the names of members of the Nominating Committee be published, and I agree with that except that, in the substitute which I propose, I suggest that they be published in March, for the reason that the Secretaries of the Component Societies do not furnish the Secretary of our Society anything until the first of February, which means it would have to be in the hands of the Editor by the twentieth of February in order to get into the March Journal. It could be done by his writing sooner, perhaps to the other Component Societies.

The last proposal that I make—that members, through resolution by the House of Delegates, permit the advertising in the March issue of the Journal of the names of members who have been endorsed by their respective Component Society as candidates for office in this Society—I believe is thoroughly sound.

President Hagerty: Dr. Morrison has asked permission to say another word, and I think an exception to our general rule might be made in the case of an Officer of the Society.

Secretary Morrison: To begin with, I am not so much impressed with the results of *democracy* as I was when I came to the United States some 30 years ago, and it seems to me that if this great nation of ours is to survive, there must come a great change in the present system of democracy.

The Medical Society of New Jersey is a pathfinder. There is no reason why we can't adopt something new and show the others how, as we have sometimes done in the past. The American Medical Association nominates all of its officers from the floor; there is no such Nominating Committee as there is in the Medical Society of New Jersey. Shall we follow the American Medical Association because it is the American Medical Association? No! But the proposal now under consideration gives an opportunity for a well-thought-out opposition ticket, if it is thought wise by any number of members of the State Society to present a ticket in opposition to that of the Nominating Committee.

I believe that publication of the names of the Nomination Committee is an immensely important step. I recall an instance, of several years ago, when a prominent member of the Society was, for some reason unknown to me, extremely anxious to get on the Nominating Committee, and despite my insistence that he could not do so because he had not

been named for that position by his County Society, he got on. He persuaded the elected member from his county to withdraw and let him take the place. If the names of the Nominating Committee are published in advance, such a trade could never occur. Then, the opportunity is given to the Councilor Districts, to members from all over any district, to get together months before the Annual Meeting and prepare and announce an opposition ticket, and when that plan is adopted and the opposition ticket is published, why throw the nominations open any further? You know that nominations from the floor are usually spontaneous acts of one man, thought of at the moment, and acted upon hastily. Providing the opportunity for an opposition ticket, well thought out and pre-published, precludes the necessity for any further nominations.

Dr. Frank W. Pinneo (Essex County): I am going to speak for Essex County in opposition to the moved amendment. In the excellent Constitution and By-Laws we have, in the matter of nominations there is only one improvement that we should make. The names of the Nominating Committee should be published in the Journal a sufficient length of time before the Annual Meeting so that all may know. Some County Society Secretaries have been embarrassed through the years in securing for the information of their societies the names of the Nominating Committee. To tie up the Nominating Committee with a By-Law that makes it explicit how and when they should act, is against democracy. Furthermore, if these nominations in this case are to be made, never mind how widely they are published, and the doors closed a month before the convention, the rank and file of our Society will not be pleased; for they feel that this Society in its Annual Convention is their meeting and they have a right to express themselves.

I am a little sorry to hear Dr. Lathrope characterize our practices as "wire-pulling" and "machine politics" and that sort of thing.

I will come first to the action of a County Society under which we, as Delegates, are acting. I am speaking as Secretary of that delegation, and the motion will be as follows: That this be referred back to the Committee, approving Dr. Quigley's Minority Report, and providing that the Committee shall make an amendment covering only 2 things: (1) publication of the names of the Nominating Committee in the Journal sufficiently before; and, further (2), that no action be taken that shall preclude nominations from the floor.

Dr. Elias J. Marsh: May I ask for some

information, Mr. President? I want to inquire how the matter would stand if the Committee meeting is held in March and the elected member, or Alternate, of the Nominating Committee from any county is unable to attend? In March a good many members of the medical profession are pretty busy and, thinking of a county distant from the point of meeting, it is possible that both the Delegate and his Alternate would not be able to get there. In that case, would that county lose its vote?

Dr. W. Blair Stewart (Atlantic County): I am in entire sympathy with what Dr. Marsh has said with regard to the meeting in March. I think it is a mistake to attempt to get a Nominating Committee together so far in advance of the Annual Meeting. If it is necessary that this committee's meeting shall be held separate and apart from the Convention, I think we should change our method of picking out our Delegates.

I do feel very keenly what Dr. Morrison has said, that it would be advisable for this Committee to meet at a time when its members are not tired with the day's work, and, in place of meeting in March, why would it not be possible for that Committee to get together in the afternoon of the day before the Annual Meeting, just as the Board of Trustees meets; a procedure that would not necessitate any member of the Nominating Committee making 2 trips with 2 expense accounts and, as Dr. Marsh has said, at a time when medical men can ill afford to be away from their work. I believe that would be a very wise provision.

Possibly the suggestion of Dr. Quigley for the evening of the first day might be good, but if it is your desire, and I believe it would be a wise thing, that that Committee meet in the afternoon or the evening preceding the regular business session, that might be the solution.

As to the advance advertisement of the names of the Nominating Committee, that certainly should be done.

In addition to that, I feel that if any County Society has a candidate to offer in nomination for any office in the State Society, privilege should be given to that County Society to make the announcement in a certain issue of the Journal, and thus inform every member of the State Society.

As to the last article—barring off individual nominations from the floor—to me that seems a great mistake. I would not favor a move of that kind.

Secretary Morrison: If I may have a word more, a suggestion has been brought to me

that next year we have the Program Committee provide for holding the first meeting of the House of Delegates at 2 p. m. on Wednesday instead of 10 a. m., which would allow a great many Delegates to get here without the expense of stopping in Atlantic City over night.

In regard to Dr. Marsh's suggestion, our Welfare Committee is composed of 35 members and we have an average attendance of 30; and the members come to Trenton from all over the state 3 to 5 times a year. Why cannot members of the Nominating Committee come once a year? As it is here, sometimes 1 or 2 counties are not represented by any member at all.

Dr. Samuel A. Cosgrove (Hudson County): I don't want to treat this matter flippantly, but it does seem as though the issue is between *star-chamber proceedings in March*, against which it is probable that there would soon be allegations of undemocratic manipulation, just as were formerly urged against the proceedings of the Fellows of the Society, which instigated the old turmoil of the change in our Constitution and By-Laws, and a *log-rolling session at the Annual Meeting*. I don't pretend to say which might be better. Dr. Morrison says he is disillusioned as to democracy; perhaps we all are, but we are still living under a sort of democracy, and the effort of the Society has been toward democratizing its procedures. A phase which has not been touched on, and which I think is important, is that in the past the very pinnacle of interest in these annual sessions has frequently revolved about the very log-rolling that is assailed in this report, and I quite agree with Dr. Pinneo that the whole body of Delegates would be resentful, and that a great deal of the interest in the session would be lost, if the Delegates, assembled in a body, in Annual Convention could not be in touch with the deliberations of the Nominating Committee.

Dr. Spencer T. Snedecor (Bergen County): I feel that the proposal of the Majority Report would set a very dangerous example. Personally (and I believe I can speak for the Bergen County delegation), I don't approve of this arrangement of the Nominating Committee, to meet so early in the year and of having closed nominations. It is very dangerous, in my opinion, not to permit nominations from the floor.

In view of Dr. Morrison's remarks about changing the time for the initial business session, I am in hearty agreement with Dr. Pinneo's suggestion that this whole problem be referred back to the Committee on Revision

of the By-Laws, to be revised and resubmitted next year.

Dr. Ephraim R. Mulford (Burlington): There is another feature that might be considered in connection with this changing of the date of the Nominating Committee meeting; and that is whether, if we could have the meeting of this Nominating Committee moved up into the last day, it would keep present with us many of the men who come here, exercise their privileges the first day, and then go home. I had intended to bring this matter up under New Business, but since this discussion has arisen, and not having had an opportunity to peruse the Report of the Committee on Constitution and By-Laws, it seems to me that this should be revised or sent back to this Committee, and this whole program revamped again; and I would suggest, having had the privilege of sitting here and having been greatly embarrassed (as some of the other members have been) in having to introduce guests when there have been only 8 or 10 people here to hear them, that we might consider the matter of having the Nominating Committee meet on the last day. I believe then we could present a goodly number of men to hear the papers. I, too, would urge that this Report go back to the Committee.

Dr. William F. Costello (Morris County): In the discussion which has arisen here today I think there is an extremely vital proposition. I think there are good points to the thing. I think both the Majority and Minority Reports have the best interests of this Society at heart, but the important thing in the whole matter is—giving the Nominating Committee proper time and proper conditions under which to do their work. I have been on several Nominating Committees, and while each presiding officer has done his best to have the work done properly, it has been very embarrassing and hard for him in the limited amount of time.

I agree heartily with the Essex County Delegate and the other members who have spoken, that the right of nomination from the floor should not be taken from the organization. I think the Committee has probably learned something from this discussion and that it would be wise now to return this matter to them for further consideration and for a future report at this or some subsequent meeting. May I offer that as an amendment to the pending motion?

Dr. Mulford: I second the motion to amend.

Dr. Quigley: On the amendment, I take it then, that the sense of Dr. Costello's motion is that the 2 items, 7 and 9, be stricken out of the report and the matters contained therein

referred back to the By-Laws Committee for report at the next Annual Meeting.

Dr. Pinneo: I hope there is included in the motion instruction on 2 points: (1) that the Nominating Committee names be published in the Journal, and (2) that nothing shall preclude nominations from the floor.

President Hagerty: You are familiar with the amendment?

The question being called for, the motion to amend was put to a vote and was carried unanimously.

President Hagerty: Now, the question is on the motion as amended.

The motion, as amended, was put to vote and was adopted.

Dr. Quigley: May I make a motion then, if it is in order, that this be embraced in the form of a resolution:

Resolved, That this Society permit of the advertising, in the March issue of the Journal, the names of members who have been endorsed by their own respective Component Society as candidates for office in this Society; and, that in the same issue of the Journal there shall be advertised the complete membership of the Nominating Committee by name and county.

The motion was regularly seconded, put to vote, and carried.

Dr. Quigley: There are only a few more items to be considered. (10) Chapter VI. Sec. 2. (p. 21). Strike out entire wording and substitute:

"The President-Elect and the Vice-Presidents shall assist the President in the discharge of his duties, and in his absence or disability the President-Elect or the ranking Vice-President, shall preside at all meetings of the Society and of the House of Delegates, and perform all duties pertaining to the office. In case of a vacancy in the office of President, by death, resignation, or removal, the President-Elect, and in his absence, the ranking Vice-President, shall perform all duties pertaining to that office until the vacancy is filled by appointment of the Board of Trustees."

It was regularly moved and seconded that the Section be adopted as read. The motion was put to vote and was carried.

Dr. Quigley: (11) Chapter VII. Sec. 6. (p. 27). At the end of the first sentence, line 6 of the Section, replace the period with a semicolon and add the following:

"and shall conduct, at least once a year, a joint meeting of the Delegates and Alternates of the Component Societies of his district."

The purpose is, as you know, the idea of Councilor District meetings started 2 years ago, without definite plan as to procedure, and

it seems to be the feeling, in talking to the Councilors and others, that the most desirable type of Councilor District Meeting is one through which all the Delegates and Alternates of the respective districts get together, and so this added wording to this Section is for the purpose of accomplishing that.

It was regularly moved and seconded that the Section be adopted, as read, and that motion was duly carried.

Dr. Quigley: (12) Chapter VIII. Sec. 10. (p. 31). After the comma following the word "member", line 3 of the Section, insert the words "appointed annually". I have explained the reason for that. It was left out through an oversight.

It was regularly moved and seconded that the recommendation of the Committee be approved and adopted, and the motion was put to a vote and was carried.

Dr. Quigley: (13) Chapter IX. Sec. 2 (a) (top line p. 35). Change the word "one-half" to "one-quarter". I have explained that also.

It was regularly moved and seconded that the recommendation of the Committee be concurred in, and the motion was carried.

Dr. Quigley: (14) Chapter X. Sec. 3 (a) (sixth line p. 37). Replace the semicolon after the word "society" with a period, and delete remaining sentence, beginning with the word "provided" . . . The portion that we propose deleting is incorporated in Item 16 with slight changes.

It was regularly moved and seconded that the Section be adopted, and the motion was put to vote and carried.

Dr. Quigley: (15) Chapter X. Sec. 3. (p. 37). Add new sub-section (c) to read as follows: :

"Each component society, as a requisite of eligibility to active membership, may require applicants to serve a probationary period of not longer than two (2) years in the society as Associate Member. Associate Members shall have such privileges in component societies as the Constitution and By-Laws of the respective societies may provide; except the right to vote and hold office. Their dues shall be those fixed by their respective component society, plus the subscription price of the Journal as determined by the Board of Trustees."

It was regularly moved and seconded that this be adopted.

Secretary Morrison: This Section provides for a new class of membership, *Associate Members*, and the assumption is that they are new licentiates, but it is not so stated. In almost every county except the largest, provisions are made that when a man applies for membership, the application must be accompanied by a check for his dues, but in the largest county in the state it is not so, and

some of them lapse their membership, and may lapse for 2 years, and be reinstated, not with payment of all dues, but as new members. These men could, I fear, claim the same privilege. It should be stipulated that these *Associate Members* are new licentiates.

Dr. B. T. D. Schwarz (Hudson County): I have been instructed by the Hudson County delegation, with approval of the Second Judicial Council District, to explain this amendment to which we have given a great deal of thought and which, we feel, is very important.

Dual forms of membership are recognized throughout the counties of the state. It is an exception where a County Society does not have more than one class of membership; in fact, there are only 4 counties that had that distinction when I wrote to them, for the Membership Committee of the Hudson County Medical Society, in the early part of this year.

It is desirable that we have some uniform plan, however, in creating such a membership. It is necessary, indeed, for the information that the Society should have concerning a new applicant for membership and also because of the educational feature that our Society has recently adopted for instructing these new members as to what organized medicine thinks concerning numerous questions which are today interesting the medical profession. It is the plan of the Hudson County Medical Society, following the provision of Associate Members, to hold monthly meetings at which the new *Associates* will be instructed concerning questions of vital importance. We have had one such induction already, at which Dr. Morrison was present and he can testify, personally, as to its educational value, at which 5 Past-Presidents spoke, on various topics, but all carrying the general theme of the physician's relationship to his surroundings.

These new (associate) members, when they come into the Hudson County Society will serve an apprenticeship for a period of, perhaps, 2 years, and during that time they will be educated, if you would so term it, in the principles that we medical men believe are important to our existence.

This amendment is not to be compulsory. Societies that do not care to make provision for an associate membership need not do so, nor is the time specified, 2 years, necessarily to be accepted; it does state that it shall not be more than 2 years, and during that time the Society will be receiving enough dues to cover the cost of subscription to the Journal. These new men probably will be mostly new licentiates.

President Hagerty: Is there any further discussion?

Secretary Morrison: I would like to offer

an amendment: "Each component society, as a requisite of eligibility to active membership, may require applicants" insert after the word *applicants*—"who are new licentiates, within two (2) years", and so forth.

Dr. Pimco (Essex County): The purpose is to get allied with organized medicine the new licentiates, those within 2 years. As the amendment suggested by the Committee is framed, it is elastic enough to suit the purpose of the different counties, of which there are 4, that already have such membership, and as it is a *limited membership* with all the counties, it seems to be framed just right.

Dr. Morrison's motion to amend was seconded by several.

Dr. Quigley: I think Dr. Morrison's motion is unconstitutional for this reason, that every county society—I call your attention to Chapter X, Section 3 (a): "Each component society shall judge of the qualifications of its own members, subject to the right of approval of this society" and so forth. Now it may well be—it might not happen often—that one county society might not desire to take into membership a member from another county society, and, according to this Section of the By-Laws, they would be perfectly within their rights in refusing membership if they felt as though they wished to do so; so I feel, myself, that this proposed amendment is not constitutional.

In the second place, I don't think it is a desirable thing because there may be instances—I know that Hudson and Essex Counties have peculiar situations where it might be possible, for instance, for them to import quite a few doctors to man a hospital, from another county or from outside the state, and as long as they were members of another Component Society, if this amendment were adopted, they would have to be taken in by Essex. I think this is broad and elastic enough to cover the situation without an amendment.

Secretary Morrison: I claim that my amendment is perfectly legitimate and not unconstitutional. We have already provided that no member of one County Society shall be a member of another, whether in full or associate membership. I am, as Secretary, looking after the financial interests of the Medical Society of New Jersey, and I can see in this proposed amendment the possibility of reelecting men who owe the Society dues for 2 or 3 years and are not required to pay them, and we would do this at the expense of the other members who pay \$15, or \$13, or \$12, whatever the assessment may be, while they pay nothing but the cost of the Journal.

Dr. Snedecor: Bergen County was the first to adopt associate or junior memberships. I

do not know as to the legality of Dr. Morrison's amendment, but we would object to it from this point of view; no matter how long the men have resided in our county, no matter how long licensed to practice in the state of New Jersey, we would still prefer to put them on a probationary period of 1 to 2 years. Our own probationary membership is for only 1 year, so we object to the amendment.

Dr. Andrew F. McBride: There is objection made by Dr. Morrison to this on the ground that men might be elected to this class of membership and escape their responsibility to the Society by virtue of having been members before. Couldn't you make an amendment to exclude anyone who had held membership?

Secretary Morrison: I will withdraw mine if you will substitute yours.

Dr. McBride: I should be glad to offer that as a substitute.

Dr. Quigley: May I say another word on that? The objection to that, Dr. McBride, as I see it, is that you would still be taking away the right of a Component Society to judge as to the qualification of its members.

Dr. McBride: I think that objection could be easily overcome. If he were a bad member once, or had lapsed with obligation to the Society, that would make him ineligible for this class of membership.

Dr. Schwarz: Associate membership is not preferable to regular active membership, and I think in a good many instances, where men keep out of the Society, it is a question of financing the dues. It is a common statement that they feel that the dues they are expected to pay are altogether out of proportion to the benefits that they receive. I don't think we are giving those men a terribly big concession if we lower them from the rank of active membership and designate them as associates, and if they care to come in under that rule, it is all right, but the Society, nevertheless, under this amendment would not or could not carry them longer than 2 years, and in many societies you may make it only 6 months, or whatever you may want, but you leave it to the Component Society to decide in accord with their own peculiar conditions.

President Hagerty: Is there further discussion?

The question was called for.

President Hagerty: If there is no objection from the House, Dr. Morrison's amendment to the motion will be withdrawn in favor of the substitute amendment made by Dr. McBride.

Secretary Morrison: That—no member delinquent at any time shall be included in this list.

Dr. Stahl: I don't think that was Dr. Mc-

Bride's motion—anyone who had been a previous member.

Dr. McBride: He couldn't be delinquent if he hadn't been a previous member. My thought was that if a man was dropped and had lapsed as to dues, and then became a candidate for this particular class of membership, he shouldn't be elected until he had, at least, made up his obligation to the Society. To clarify it, I would say that no man is eligible to this class of membership if he has previously held membership in any Component Society and was retired for non-payment of dues, until he, at least, makes good his obligation to the Society.

Dr. J. J. Pagliughi (Hudson County): Wouldn't it be a better plan to submit this matter to the Committee on Constitution and By-Laws, so that in 2 years we won't have to change the wording?

President Hagerty: Are you ready for the question on the amendment to the motion? All in favor, signify by saying "Aye"; contrary "No". * * * The Chair will ask for a rising vote. All in favor of the motion, will please raise their right hands, and I will ask the Secretary to count the votes. All against, please raise their right hands.

Secretary Morrison: I counted 27 in favor, and 35 against.

President Hagerty: The amendment is lost. Now, the question is on adoption of the Section.

The motion to adopt was put to vote and was carried.

Dr. Quigley: (16) Chapter X. Sec. 6. (p. 38). Replace the period at the end of the present Section with a semicolon and add the following:

"provided that no physician may be a member of two (2) component societies at the same time, nor of this Society and another State Society."

It was regularly moved and seconded that the Section be adopted.

Dr. George M. Levitas (Bergen County): I feel that those Component Societies which are close to the City of New York, or to the City of Newark, may gain some advantage through having in membership in this Society outstanding men in these communities. In Bergen County we have a number of outstanding New York practitioners. In the past 4 or 5 years we have absorbed into our membership members of the medical profession who are teaching in New York, or who are outstanding practitioners in the City of New York, but who live in Bergen County. We are very happy to have them. They have been a source of inspiration. They have been of

great advantage to us in our professional efforts. To rule these gentlemen out of our Society membership would be a distinct loss to our Society; I, therefore, feel that the provision which states here that no physician may be a member of 2 Component Societies at the same time, nor of this Society and another State Society, is objectionable, particularly the phrase—"another State Society". I feel that there is some justice in the question about Component Societies of the same State Society, but to rule out those of another State Society has no particular advantage.

President Hagerty: May I say to you that this question was considered by the American Medical Association at its last meeting and it was decided there that no physician could be a member of more than 1 County Society or State Society. I think you can see the reason for that. There would be unfair representation in the House of Delegates of the American Medical Association if a man could be a member in more than 1 state. It cannot be done.

Such men as you speak of, who live in neighboring states, or who practice in a neighboring state and live in this state, might well be made associate or honorary members, but you cannot make them active members of more than 1 county society.

Dr. Pinneo: I think Dr. Levitas is right. I think the number of those who would be members of 2 State Societies is very limited in the nation.

President Hagerty: If there were only 1 in the whole United States, it still could not be done. The members of the House of Delegates of the American Medical Association are elected on proportionate representation of the men in the different states, and that cannot stand.

Dr. Snedecor: May I explain the membership classifications in Bergen County and ask an opinion of the Committee on By-Laws and Constitution as to how this amendment would affect that? We have first, *regular* members who pay full dues to the State Society. We have *honorary* members who also pay full dues to the State Society (and object to doing so). We have a classification called *junior* membership, which will be changed to *associate* membership under the last adoption we recently approved in the By-Laws. Also, we have a class of associate members established to include the group of which Dr. Levitas spoke, men living in Bergen County, members of the State Societies of adjoining states. We have not given them voting privileges or other rights of regular membership. We charge them a nominal sum of \$5 and call them asso-

ciate members. What effect will this proposed amendment have upon their standing?

Dr. Quigley: Answering Dr. Snedecor, my thought with respect to Bergen County's problem is that it would mean changing the term "junior members" to "associate members" and finding a new term for "associates".

Dr. Snedecor: That is perfectly acceptable.

Dr. Quigley: There is only one other recommendation in the report and that is with respect to the suggestion from the Conference of Secretaries and Reporters to the effect that Reporters be made *ex-officio* members of the House of Delegates. The Committee is not in favor of this change but recommends that the component societies elect their reporters as one of their regular delegates if they desire to have them in that rôle.

It was regularly moved and seconded that the recommendation be adopted. The motion was put to a vote and was carried.

President Hagerty: I would ask that a motion be made to adopt the revisions to the Constitution and By-Laws as submitted by the Committee and voted upon here, with the exception of Items 7 and 9.

The motion was regularly made and seconded, was put to a vote, and was carried.

President Hagerty: This is adopted as the first reading.

Dr. Quigley: Yes. According to the By-Laws, it will have to lie on the table for 1 day, so provision will have to be made for a second reading on Friday. It need take only a few moments, because they may be read by title and disposed of within 2 or 3 minutes.

President Hagerty: The Chair feels that this Committee is entitled to the thanks of the House of Delegates for the labor and time expended upon this task. (Applause.)

The next order of business is the Report of the Secretary.

Secretary Morrison read his report, which was as follows:

Report of the Secretary

To the Officers and Members of the
Medical Society of New Jersey:

We open today the 166th Annual Convention of our venerable society.

Our total membership at this time last year was 2694. Number of names on the *Official List* (of 1932), published in April, was 2612. New and reinstated members, added since that date, number 214. Total membership at present time is 2826, which is the highest figure our Society has ever recorded. It was feared that the wide-spread "depression" would have materially affected our membership but we have come through with flying colors and a total of 131 members in excess of last year's figures.

The hand of death has been laid rather heavily upon us, however, since we last assembled. During the year, 41 members have passed on to the

Great Beyond. Among those who departed were Dr. Archibald Mercer, who for 25 years served as our Treasurer, and who was in 1924 our President; and, Dr. Norton L. Wilson, who was our President in 1912, and who served as a member of the Board of Trustees for many years. Both of these physicians served this Society well and faithfully, and their passing has left a great sense of loss. Dr. L. Cook Osmun, of Warren County, was a member of the Board of Trustees. Dr. Charles Calhoun, of Bergen County; Dr. B. H. Garrison, of Monmouth County; Dr. J. H. Van Mater, of Monmouth County; Dr. J. P. Schureman, of Middlesex County; had all been Permanent Delegates for many years and had served the Society with distinction.

During the year, I have made 24 visits to 17 of our Component Societies and it is a pleasure to report the continuance of marked interest in organized medicine and especially in medical economics. The newly formed Judicial District meetings are having a similar effect and we trust that all members of the Judicial Council will put forward every effort to make these meetings a continuing success.

Bergen County Medical Society, with a membership of only about 190, has engaged the services of an Executive Secretary at a salary of \$1000 a year; Hudson County Society is doing some advanced work in medical economics; and Mercer County Society has taken a long step forward in the control of contract practice.

Under date of May 5, I received a communication from the United States Fidelity and Guaranty Company, which carried our malpractice insurance, to the effect that 81 members had allowed their policies to become invalidated by non-payment of dues to the State Society. If a judgment were to be rendered against any one of those members, the U. S. F. & G. Co. would be under no obligation to defend the suit or to pay the indemnity assessed by the Courts. A letter has gone out to each of those members, calling their attention to the status of their policies.

You will receive excellent reports from your various Standing and Appointive Committees, including the Welfare Committee, the Committee on Hospitals and Medical Education, and Dr. Sommer's Special Committee on the Workman's Compensation Law. In addition, it will be timely for me to add some personal observations.

You know that for 2 years I have served on a Special Commission, appointed by the Commissioner of Labor, to review the application of the Workman's Compensation Act in New Jersey. Our first report was published last year and I am credibly informed that, since some of our recommendations were put into effect, there has been a marked improvement in its administration. While associating with the other members of that Commission, I have learned a great deal about the dissatisfaction with application of the law in so far as it has concerned our physicians. I shall discuss this matter under the following heads:

(1) *Knowledge of the Act.* If you are going to treat injured employees under this Act, it is absolutely necessary for you to procure a copy of this law and become conversant with its provisions.

(2) *Authorization to treat injured employees.* When the injured employee comes to you for treatment, see that he has, or that he brings with him at his second visit, authorization from the employer for you to treat him. Preserve this specific authorization because it will be your contract, and under it, you can collect from the employer pay-

ment for your services, no matter what may be the attitude of the Carriers.

(3) *Reports.* It is mandatory under the Act that you make the necessary reports and mail them promptly. If you neglect to do so you are violating the Act.

(4) *Extensive treatment.* In cases where the treatment will last more than 2 weeks, and where your bill will be in excess of \$50 allowed by the Act, it is also mandatory under this law for you to notify the employer (through the Carrier) of this fact. Again, if you neglect to do so you are violating the Act and if the Carriers send you a check for \$50 in payment of your bill of \$100 they will be perfectly justified in doing so and you will have no redress. These reports are far more important than you know, because, when multiplied by hundreds or thousands, it is the business of the Carriers to set aside a reserve fund to cover the amount of such bills.

(5) *Itemized bills.* If your wives had charge accounts at Wanamaker's, Altman's or Lord & Taylor's and you received a bill for \$100 at the end of the month, you would insist on its being itemized before you would pay it. But many physicians seem to think that when they render a bill for a lump sum it should not be questioned. This, again, is due to a lack of business training. The Insurance Carriers are perfectly justified in demanding itemized bills. If you charge \$5 for dressing a severe burn of the hand, they will think it excessive; but, if you specify that you had to treat and bandage each finger separately and that the time consumed was 1/3 of your office hour, it will be paid without question. Again, if you charge \$100 for treating a fracture of the thigh, the Insurance Carriers are entitled to know what you charged for the reduction, for the application and removal of plaster splints, or the number of personal adjustments required in using a Balkan frame.

(6) *Fees charged for service.* The Compensation Act was not passed for the benefit of physicians, and in sending bills to the Carriers you must not consider that you are dealing with wealthy corporations and charge on that basis. Your bill for medical services, should be, in every instance, exactly the same amount that you would have charged the injured employee had he been paying the bill himself. Before the adoption of this Act, we lost 60% of such earnings because of the irresponsibility of the employee; whereas, the Workman's Compensation Act has during the past 10 years put more than \$4,000,000 into the pockets of the physicians in this state. It is a good Act. Do not abuse it.

(7) *Compensation Advisory Committees.* Remember that in every Judicial Council District there is a Compensation Advisory Committee, set up with the sanction of the Medical Society of New Jersey and the Employers' Association of New Jersey. It is the result of a gentlemen's agreement, secured by Dr. Eagleton while he was our President—not something provided for in the Act. Each of such committees is composed of 1 member from a County Society, 1 member from the Employers' Association, and a third, disinterested member, chosen by the 2 named. Any disputed bill may be referred to such a committee, and when passed by that body it is paid without question.

(8) *Experience and Advice.* The following observations are from my own personal experience. The Carriers are not provided for in the Act. This instrument provides that the employer shall supply the necessary medical attention, and the

employer is responsible for your bill. If the Carrier (the Insurance Company) questions it, or offers you 50% of it in settlement, ignore that body and deal with the employer direct. That is where so many physicians make a mistake. They seem to think that the Carrier's word is the last word. Go over their heads and appeal to the employer. You will find, in almost every instance, that the bill will be paid in full in a very few days.

(9) *Case lifting.* When cases are *lifted* from your care, by order of a Carrier, take the matter up with Dr. David A. Kraker, of 31 Lincoln Park, Newark. He will refer it to the Officers of the Carrier's Association, consisting of representatives of some 60 companies interested in these matters.

(10) *Complications.* In other troubles which may arise, seek the advice and coöperation of the Commissioner of Labor or one of his Deputies; they are all anxious that the physicians should be satisfied with the application of this Act.

If you will observe these points as I have enumerated them, your troubles with the Compensation Act will "fold their tents like the Arabs and as silently steal away".

Last week, Mrs. Wyatt, of the Board of Children's Guardians, called at my office, by appointment, endeavoring to secure the coöperation of the Medical Society of New Jersey in the medical care of the protégés of the State placed under their supervision. In the past, the Board has been accused of favoritism in the choice of physicians. Mrs. Wyatt suggests that the State Society, through the respective County Societies, ask for volunteers from among its members who will attend to these children at a nominal charge. There are some 30,000 of these orphans and they are divided into 2 classes. The first class belong to the widowed mothers and are provided for out of an appropriation set aside for this purpose. These mothers should pay for the medical attention rendered their children. The other class is comprised of orphans, *wards of the counties* in which they reside, and their maintenance, food, clothing, and medical attention, are paid for by the County Freeholders.

I told Mrs. Wyatt that the State Society is opposed to any form of fee schedule but that each County Society might well name members who would do this work at a fee of \$1, let us say, for an office visit, and \$1 plus 50 cents per mile for outside calls. When we consider that these children are wards of the State we should be willing to make a considerable reduction in charges for their care. I trust that the Secretary of each County Society will see to it that this matter is made the "first order of business" at the fall meeting, and if they will send me the names of the physicians who have volunteered, and the proposed fees, I will convey such information to Mrs. Wyatt as the action of organized medicine in the State.

Respectfully submitted,

J. B. Morrison,

Secretary.

President Hagerty: You have heard the Secretary's Report. What is your pleasure?

It was regularly moved and seconded that the Secretary's Report be received. The motion was put to a vote and was carried.

President Hagerty: It is now 10 minutes of 1 o'clock. Shall we proceed with the regular order of business?

Upon motion, regularly made and seconded, it was voted to adjourn, and the meeting adjourned at 12.50 p. m.

Wednesday Afternoon

June 15, 1932

The House of Delegates convened at 2.45 p. m., with President Hagerty in the chair.

President Hagerty: The Chair has a statement to make which gives him great pleasure. We have with us this afternoon, Dr. J. B. Harrison, of Westfield, who has been a member of this State Society for more than 50 years, and in all that time he has never missed attending its Annual Meeting.

Dr. Harrison arose amid applause.

President Hagerty: The Chair would like to announce again the names of the members of the Business Committee: Drs. W. Blair Stewart, D. L. Haggerty, W. G. Schauffer, John Nevin and J. H. Lowrey.

The Executive Secretary has asked that the reading of his report be deferred for a short time, so we will ask the Field Secretary to read her report.

Mrs. Ethel C. Taneyhill, Field Secretary, read her report, as follows:

Report of the Field Secretary

To the House of Delegates of the Medical Society of New Jersey:

The work of the Field Secretary reached the point, in this year 1931-32, where the available funds proved inadequate for completion of the scheduled program. This statement is not to be interpreted as a recommendation for increased appropriation. It is offered merely as a gauge by which to measure what may be expected, under the same conditions, in the future, and, in order to make that gauge more exact, it should be understood that even the program, as limited for this year, could not have been put through had not the Executive Secretary personally guaranteed and supplied the requisite balance. When the emergency arose it was deemed vital that the confidence of the public should be maintained in the ability of the Medical Society to carry out, year by year, its educational project, and it was believed that nothing would be so detrimental to this confidence as failure to keep engagements made months in advance.

We went on, therefore, to the completion of 270 talks, thereby reaching an audience of 81,346 individuals. This is an increase, over the best record we have yet made, of 23 in the number of talks and of 26,240 in the number of auditors.

That such an increase should have been achieved at less expenditure than has been made in any previous year for this phase of the educational work, was due to the fact that the available time is being used every year to better advantage by the county superintendents of schools.

You might be interested to know that in the way of coöperation, in East Orange, for instance, 87 children were brought in a bus from one parochial school to another where the audience was

larger, in an effort to save the time of the speaker.

The character of the talks is also becoming more widely known, with the result that they are being requested by and for larger groups. That the Field Secretary's share of the travel fund should have been less than in any previous year is accounted for by the ever increasing demands of the society's business on the expense account of the Executive Secretary.

As was stated, under the *same* conditions this year's record could be approximately duplicated another year, but there is no apparent reason why, under more favorable conditions, an even greater return on the amount at present invested should not be realized. This possibility rests now exclusively with the members of the Medical Society whose local endorsement of the project would readily add scores of audiences to the present annual list. All that is needed is a timely word—and a word costs nothing.

To illustrate: The County Superintendent of Schools is, under the Department of Instruction, our key-man in each county, as his knowledge of local conditions enables him to make the adjustments requisite to a workable schedule. He is, however, subject to certain limitations in promoting a program of this kind with the *city* school administrations, over which he has no jurisdiction, and city principals are so besieged by requests from individuals and organizations for access to school assemblies that our offer is very apt to be pigeon-holed, along with all the others that have not, by some additional means, been brought to his particular attention.

The logical intermediary between the Medical Society and the city schools is the medical supervisor (or health supervisor, as he is now preferably called), as he would naturally be expected to be interested in promoting any project of the society, and his recommendation would carry weight with school administrators. Experiments along this line, however, showed that even this health supervisor must be approached by the right member or members of the county society.

In Newark, for example, the utmost effort of your secretary to obtain this intermediary service on the part of the Director of Health Education was fruitless. In New Brunswick, however, where an appeal to the city principal had elicited no response, Dr. Frank C. Johnson enlisted the coöperation of the health supervisor, Dr. E. Irving Cronk, and thereupon, suddenly, after 2 years, the doors opened. A program was arranged by which, in one and one-half days, talks were given in 10 New Brunswick schools to a total of 4500 pupils and 170 teachers and principals. In this result of Dr. Johnson's prompt and effective support there certainly seems to be ample evidence that similar activity on the part of members of the county societies throughout the state would greatly amplify the scope of this phase of health education.

Its development to date has been due almost exclusively to the promotional interest of lay members of communities. The Child Hygiene and school and district nurses have been active supporters in some instances. In Essex County it was the Health Officer of East Orange, Mr. F. J. Osborne, chairman of the state Antidiphtheria Committee, who presented us with a program embracing 19 talks and reaching over 9000 persons. Except for the 2 radio broadcasts, arranged by the Woman's Auxiliary to the Essex County Medical Society, the city of Newark was untouched. Altogether, the schedule for the Oranges and vicinity

was the most satisfactory combination of service clubs, woman's clubs, social agencies, parochial and public schools that has yet been devised.

The minutes of the annual meeting of the Board of Health of East Orange, held June 2, contained the following notation: "The Secretary had received from Mrs. Ethel C. Taneyhill a record of the lectures which she had given in Essex County this spring. Her audiences totaled 9128, of which 3693, or 41%, were in East Orange. The Board was pleased with this addition to the educational program of the city and the members expressed their appreciation of Mrs. Taneyhill's work here, upon which many favorable comments had been received." Mr. Osborne adds: "The Board is hopeful that you may return each year with some new line of health information to impart to the people in the City of East Orange."

Whether the talks that we offer find their more productive field among city or rural groups is a debatable question. The county superintendents have repeatedly expressed the opinion that they are especially valuable in rural communities which are deprived of much that cities provide in regard to health education. Some members of the Medical Society believe that the greatest need for such instruction lies in the more or less congested city districts. The experience of 5 years has led your Field Secretary to the conclusion, with which many teachers agree, that this effort is most productive among groups, either city or rural, whose social and economic standing enables them to carry out the measures advocated. Among the very poor, home conditions are such as to make the adoption of even the elements of hygiene, as taught in the class room, a real problem.

It would probably not be disputed that the most important part of our audience consists in the several thousand teachers and principals and normal school pupils who could not be reached in such numbers except through the school assemblies. They are also most appreciative of the generosity of the Medical Society in providing, as it does, not only authoritative confirmation of the principles which they try daily to instill into the minds of the pupils, but also personal help in their own health problems. This debt to the State Society is often warmly acknowledged from the platform.

Our program was endorsed for the third consecutive year by the Department of Public Instruction through Dr. Allen G. Ireland. The 2 new subjects stressed were "The Common Cold", and "Medical Quackery and Nostrums", although the talks on Pasteur, and on Mental Hygiene, were still occasionally asked for.

The talk on Medical Quackery has been given 40 times to date—with one exception to adult audiences only. The exposé of fraudulent advertising and the warning as to the dangers of self-treatment are proving most timely, as they coincide with a period during which a large portion of the public is either deferring, or dispensing with, medical attention, as one of the first steps in a forced economy. Thus, necessity brings to the quack a golden opportunity and, in recognition of this fact, every effort has been made to persuade audiences to avail themselves of the free services of the Bureau of Investigation of the American Medical Association in providing authentic information regarding preparations with which they may be individually experimenting. In a recent letter, Dr. Arthur J. Cramp, Director of the Bureau, states that since October, 1931, about 220 inquiries have been received from New Jersey, and it would seem fair to assume that most of these

were stimulated by the leaflets furnished by the Bureau and distributed at each of our meetings. The posters used in illustrating the talk on Medical Quackery, and priced at \$5 in the catalogue, were also furnished free of charge by the Bureau.

Response from the separate counties to last summer's announcement of our year's schedule, varied from indifference to a demand greater than could be met. The superintendents of Morris and Somerset counties showed no interest this year, and the few talks given in those counties were in response to voluntary requests. Because of lack of funds, no effort was made to renew former contacts in those localities and, for the same reason, Cumberland County, whose scheduled week was canceled because of an automobile accident, was not visited, as it might have been, later in the year.

The supplement to this report will show you the distribution of the work by counties and groups, and you can readily see, by comparing for instance, the record of Salem County for the 3 days preceding Thanksgiving which always fall to its lot, whether your county, which gets a week or more, is making a creditable showing. Ten days are spent annually in Union County, where the superintendent of schools is chronically health-minded and promotes our work vigorously. The return to Essex County for part of a second week centered about the date for the second radio broadcast there and was largely the outgrowth of requests from members of audiences before which talks were given during the first week.

A comparison of the achievements of the Medical Society of New Jersey and the machinery by which these are effected, with similar activities of another unit of nearly the same size, should give this body cause for complacency. The Philadelphia County Medical Society, for example, with a membership of 2200, maintains commodious offices and a staff of 7 persons for conducting its editorial, executive and educational work. For 8 years, the duties of its Executive Secretary have required full-time service. The educational project is conducted through a Speakers' Bureau, which has a full-time director—the plan being similar to the one followed in Illinois. Fifty or more designated members of the society are on call to respond to requests for talks and their report for this year showed that an audience of 10,000 in all, had been reached. It should be noted, however, that the emphasis in this field has been placed on the radio talks given over one of the local stations, and on newspaper publicity in regard to medical meetings. Obviously, there can be no computation of the audience thus embraced but, as Dr. Walter S. Cornell, Medical Inspector of the Philadelphia schools and President-Elect of the society, said in a personal interview, the broadcasts are generally used by the stations as fillers in the afternoon hours when there are comparatively few listeners, and the results are problematic. In any case, the field covered would probably not exceed that reached by the several New Jersey county radio programs, while the more direct platform educational work has achieved this year only one-eighth (1/8) of the contact afforded the similar effort in this state.

By what means even our present scope may be enlarged has already been indicated. The only requisite to the full development of this project of the Medical Society of New Jersey is a timely word of endorsement on the part of its members, inasmuch as the physician is always an influential factor in any community. Such support is really

the least that laymen who are promoting our endeavor, or are receptive to it, could or should expect from its sponsors.

Respectfully submitted by,
Ethel C. Taneyhill,
Field Secretary.

SUPPLEMENT TO THE REPORT OF THE
FIELD SECRETARY FOR 1931-1932

County	No. of Talks	Attendance			Total
		Schools	Teachers	Adults	
Atlantic	27	5,395	217	694	6,316
Bergen	14	5,240	225	100	5,565
Burlington	10	2,520	103	128	2,751
Camden	14	6,256	259	40	6,555
Cape May	13	1,335	77	249	1,661
*Cumberland					
Essex	19	8,465	373	290	9,128
Gloucester	16	3,561	152	40	3,753
Hudson	15	5,480	251	176	5,907
Hunterdon	9	1,470	55	85	1,610
Mercer	9	2,800	120	46	2,966
Middlesex	14	5,347	202	272	5,821
Monmouth	14	5,225	221	275	5,721
Morris	2	550	18		568
Ocean	11	1,080	47	384	1,511
Passaic	14	3,305	97	98	3,500
Salem	14	2,881	97	335	3,313
Somerset	2	1,254	46		1,300
Sussex	9	1,983	69	90	2,142
Union	27	7,975	293	430	8,698
Warren	17	2,410	95	85	2,590
	270	74,532	3,017	3,817	81,376

*Canceled on account of automobile accident.

Among the Adult Groups addressed were: Atlantic County Principals' Association (second year), 65; Social Agencies Conference, Orange, 40; Jersey City Nurses (2 talks), 115 (third year); Jersey City Health Council, 31. Teachers: Woodbridge, 200; Garwood, 25; Lambertville, 35; Blackwood, 20. Elizabeth: American Association of University Women, 50. Orange: Civic Committee of Woman's Club, 20. Library Custodians of Burlington County, 75. Elizabeth: Masonic Auxiliary, 40. Monmouth County Council P. T. A., 150. Local P. T. A. meetings, 34 talks. Service Clubs, 9 talks.

Listed under "Schools": State Normal Schools at Paterson, Glassboro and Jersey City.

It was regularly moved and seconded that the Report of the Field Secretary be received and accepted, and the motion, put to vote, was carried.

President Hagerty: We shall now have the Report of the Executive Secretary and Editor, Dr. Reik.

Dr. Reik presented the following report.

Annual Report of the Editor and Executive Secretary

To the House of Delegates of the Medical Society of New Jersey:

The wheel of time, with its recurring dates which call for the performance of specific tasks, revolves so rapidly that we seem scarcely to have finished one "annual report" before another is required. However, we greet the approaching demand with less reluctance than usual; probably because the lengthy report of last year to the

House of Delegates (Aug. Sup., p. 6-14) makes it practicable to cover the requirements this year with a comparatively short report.

The evolution of this Society during the most recent 7 years' period, especially in so far as the accumulating achievements are traceable directly to their source in the editorial office or in the full-time service of the Executive Secretary, can be found in our successive annual reports (published each year in the Official Transactions); and in our periodic reports of the Tristate Medical Conference, the Annual Conference of County Society Secretaries and Reporters, and the minutes of the Welfare Committee (all published in the Journal).

Consequently, our task at present is to bring that record up to date by briefly reporting the happenings of the passing fiscal year; which will now be done in our customary manner of dividing the new matter and publishing the several items under the headings employed in previous reports.

(1) *The Journal*. It should be unnecessary to say much now about the Journal, remembering the long explanatory statement made last year (Aug. Sup., 1931, p. 6-9), and our message would be short, were it not for the fact that some members do not, apparently, yet fully and properly understand the Journal's relationship and its value to the Society, nor even to themselves.

When, in 1930, the Journal had reached the size of 1000 pages for the year, we recommended that it be not further expanded, but held at that point for some time; and we have since held to that average. Doing so has, however, brought some interesting results. During most of the year we have published 12 original articles monthly, but even at that rate have not been able to print all the papers offered; though the accumulating of manuscripts has enabled us to raise the standard for acceptance. One curious result of selection and editing of articles is exhibited in 2 letters from which we now quote.

In one, dated so recently as April 22, a member says: "Permit me to say that during the past 6 months the Journal has shown great improvement in the general complexion of papers . . . in its selection of topics. . . . It makes interesting reading. . . . You are doing a good job, etc."

By contrast, the other, dated April 23, the very next day, written to the Chairman of the Publication Committee, says: "I was much disappointed that my paper in this month's Journal had been so unceremoniously abbreviated".

As you see, an Editor's life is not all "beer and skittles".

Quite recently, we were asked whether the Journal could be reduced in size. Our answer was: Decidedly, *no!* Certainly, not without impairment of function; not without serious loss to many members. At this moment we have in hand a sufficient number of originals articles to carry the Journal, at the rate of 12 per month, through September; and at the close of the Annual Meeting we shall receive 60 additional manuscripts. This means the filling of all original article space for 5 months beyond September; or, in other words, through February and up to the issue of March, 1933. The Journal *can* be reduced, of course, *but*, if you order its reduction, you will be sounding its death knell as an organ of high rank among State Society Journals. Is it *worth* saving? That question is for you to answer; but, before answering, let us suggest that you turn to page 7 of the January (1932) Journal and read what Dr. H. Sheridan Baketel, himself an Editor of national renown, has said concerning this Society and its Journal.

When appointed, the Editor received instructions to build up a first-class State Society Journal. We feel now, and we say it with all due modesty, *that if we had done nothing else than develop the Journal* to its present stage of excellence, this Society would not be a loser on its total investment in the Editor-Secretary.

The Editor of one of the very best of our State Society Journals recently made this statement: "In our office we have long considered New Jersey, New York, Ohio, Michigan and California as having outstanding Journals, not only from the point of view of scientific medicine, but just as important, from the point of acquainting the profession with its medico-social problems which are so intimately the concern of every physician; and *in this latter respect* New Jersey stands out as *the leader* before all others."

(2) *Public Education*. The work of this department (except the radio broadcasting taken over by county societies) was entrusted almost entirely to the Field Secretary, Mrs. Taneyhill, this past year, and will be reported by her. We do wish here, however, to direct attention to the mid-season report thereon, in the February Journal, pages 153-155; and to say that the Field Secretary has conducted satisfactorily the heaviest program ever attempted in this field of work; has, in fact, performed an almost *superhuman* task. The number of letters from school superintendents and others responsible for her lecture appointments, praising her work and requesting return engagements, has been even larger than in previous years. *Every such letter has been given spontaneously*; endorsements having *never been sought* by any of us engaged in this work—The Field Secretary, the Board of Education's Medical Director, the Executive Secretary—but this office has received many letters similar to the following, given now as characteristic:

From the Principal of a High School to the Medical Director of the State Board of Education: "Thank you sincerely for referring to us your Mrs. Taneyhill. Her talk was the most practical and useful that I have ever listened to in connection with the subject of health. If I had dismissed the pupils immediately after the talk, which terminated at 9.45 a. m., they would have secured ample practical knowledge for the whole school day."

Another organization, and one to whose members Mrs. Taneyhill had spoken previously, wrote to her as follows: "I am Chairman of the local Committee on Parent Education and we are launching our course in Child Study in a few weeks. Our people know you, and I do not know of anybody who has stimulated interest in a topic so much as you did—regarding mental hygiene—on your recent visit to our school." A third letter, of greater import, perhaps because it came from a *school physician*, expressed appreciation of a lecture to high school pupils, and requested the schedule for next year so that plans could be made for a return visit.

(3) *Conference of County Society Secretaries and Reporters*. This annual conference has continued the good work we foresaw as a possibility when the idea for such meetings first came to us. To bring the record of its transactions up to date, you need only refer to the December (1931) Journal, pages 956-970, where you will find a complete report of the best meeting these officials have as yet held. It is an unquestionable fact that improvements noted in our county societies *since this group organization* was founded, have been numerous and excellent; and, nearly every county so-

ciety in the state has shown beneficial results in one way or another.

(4) *Tristate Medical Conference.* We may best acquit our obligation to bring this feature up to date by referring you to the report published in the Journal of February 1932, pages 157-168, and the March issue, pages 253-263. In this last mentioned report, you will find the consideration given to *Dr. Waters' plan* for the guidance or control of *specialism by the profession*, and it constitutes one of the most important medico-economic discussions ever held in this state. At that meeting, the subject of *specialism* was thoroughly discussed by men who had given much of time and study to that one of the problems most urgently demanding action, and a Guest Speaker—selected because he was instrumental in establishing one of the national examining Boards—reviewed the situation as it concerns specialists. This is, however, a topic that will be presented to you today by some one else.

(5) *Legislation.* Still again we can say—this matter you will find brought up to date in the Journal of April 1932—in the Welfare Committee's Report, pages 349-351. The General Assembly which has just adjourned had the usual mass of legislation proposed—351 Acts introduced in the Senate, and 513 in the House—a total of 864 suggested new laws, or amendments to existing laws, thrown into the legislative hopper. It is fortunate for the people that *the mills of these gods grind slowly*, at least in respect to health matters. The Chairman of the Welfare Committee will doubtless report upon legislation, so we may rest the matter here with the statement that—*every Bill opposed by the Society, failed of adoption.*

The Society did not submit any legislation of its own, believing that conditions at Trenton were not favorable. Some of the Bills submitted by others were of a worthy character and to those the Welfare Committee gave its approval; and several of those became enacted laws. We followed our established custom of informing all members of the Legislature concerning Bills having a bearing upon public health or the practice of medicine, *giving our reasons* in each instance for our approval or opposition.

(6) *Post-Graduate Courses.* This is one of our pet projects which early passed into other hands for development. It was devised originally by President Thomas, of Rutgers University, and your Executive Secretary, jointly. It was, after adoption by the Society, turned over to a Special Committee, with Dr. Cosgrove as Chairman, and our appreciation of the work done by the Joint Committee from the Society and the University, is to be found on pages 244 of the Journal of March 1932, and also in an editorial in the issue of May 1932. The latter, we may say here, begs that you refer to the project always as: The State Medical Society—Rutgers University Post-Graduate Courses. It is not only a "howling success", it is unique. Though national and other state societies have talked about the need for something of the kind, in so far as we know, *nothing like or equivalent to this New Jersey plan has ever before been established.* The idea originated in this organization; the practical plan was worked out jointly by representatives of this Society and the University; Rutgers makes no further claim than that we are sure; and this Society should not throw away the *credit earned and fully accorded*, through carelessly referring to it as the Rutgers University Courses. The success of our Post-Graduate Plan is indicated in the following figures:

This year, the courses were set up in 13 centers. They were subscribed to by 25 groups, in which 820 physicians were enrolled. This makes a total of 1616 for the 3 years; a very good showing for a society with a total of 2800 members.

(7) *Woman's Auxiliary.* This organization is another of the projects started by your Executive Secretary but soon growing into an independent state; perhaps semi-independent in this case, because it was transferred, at the 1931 meeting, to an Advisory Committee appointed by the Trustees. Our chief contributions to the work of the Auxiliary this year have been (1) in further developing a special section of the Journal for matters pertaining to it, and (2) in encouraging distribution of 2 of the Primers written by the Editor—The Relationship of the Physician to the Public, and, The Woman's Auxiliary. In particular, a third edition (5000 copies each) of the first-named Primer is now being distributed throughout the country by the Auxiliary. For this distribution we owe special thanks to Mrs. A. Haines Lippincott, Ex-President of the State Auxiliary.

(8) *Antidiphtheria Campaign.* This work, turned over last year to the County Committees, has not progressed as had been hoped. The Executive Secretary has in mind a new plan for use in an effort to dispose of diphtheria in this state, but is not yet at liberty to divulge the facts. You will soon, however, be fully informed.

(9) *County Society Visits.* During the year we have made 20 visits to 15 of the county societies; having attended 3 meetings of 1 society, and 2 meetings of each of 3 others. Further, we have officially represented the State Society at a number of other organizations—notable among which were: the Delaware State Medical Society; the New Jersey Pharmaceutical Association, and the American Association of Executive Officers.

The invitation to address the last mentioned association brought forth 2 surprises; first, the fact that, in business circles, the medical profession is considered "the best organized group in the United States"—the strongest, most efficient, and smoothest running; and, secondly, a statement by the Chairman of the Association's Program Committee that, when seeking a speaker on organization methods, he had been advised to look into the Medical Society of New Jersey.

(10) *Office affairs.* Under this heading we may group several items. First, we take pleasure in repeating what we have been privileged to say in previous reports, concerning our Office Secretary, Miss Mahoney, i. e., that the Society is fortunate in having such a capable and loyal employee, and that the Editor-Secretary is doubly fortunate in receiving the direct benefit of her abilities.

(11) *British Medical Association's Centenary.* You will be interested to learn, we hope, that, in response to an invitation to send 3 Official Delegates to the British Medical Association's Centenary Celebration, in London July 24 to 30, 1932, the American Medical Association has done us the honor of appointing the Editor as one of those Delegates; the other 2 being Drs. George H. Simmons and Edmund Horgan, of Washington, D. C. We have accepted the honor and will endeavor to properly represent the medical profession of these United States.

CLOSING

In closing this report, we wish to direct your attention to the progress of the Society during the past 7 years, with particular reference to its achievements. This is done in part because we are informed that the subjects of curtailing the Jour-

nal and cutting down, or out, the public education program are to be considered at this meeting.

The "ancient and honorable" Medical Society of New Jersey is now celebrating the 166th anniversary of its birth, and at the "ripe age" thus indicated we find it " hale and hearty"; find it, in fact, at the highest point of its attainments and in the most energetic stage of its activities during that long period of existence. To be "the oldest medical society in these United States" is in itself an honorable distinction, but to have been, more or less constantly, through all those years a leader among such medical organizations, and to be yet today rated among the most active and most progressive of state medical societies, is something of which its members may justly be proud.

Even a casual reading of the life history of any such organization will show that its growth or development has been cyclic in character; and that observation applies not only to graph-curves of activity and of progress, but likewise to many problems which show a curious tendency to recur at fairly fixed time-intervals. The much talked about problem concerning the relative proportion of specialists to general practitioners, recently disturbing the public through newspaper and magazine articles, for instance, is by no means *new* or *novel*, having been under discussion at least as far back as the days of Galen.

Quite recently, we were asked to describe the conditions existing when we became Editor of the Journal and Executive Secretary of the Society, and, further, to report upon the work accomplished during our incumbency of those official positions. When that review of personal experience was completed, we recognized in the resultant story an interesting picture of passing events. We would be glad, indeed, to paint for you that word picture if and when desired, but at this moment we will submit merely a brief summary of our *achievements*.

(1) Brought the Journal from obscurity up to a prominent position among the leading periodicals of its class.

(2) Galvanized into life several of the county societies which had fallen into a state of innocuous desuetude, and we have increased the activities of nearly all the others (sharing the credit for this with Dr. Morrison) until the Society has today 21—the full complement of the state—first-class, active, progressive component county branches.

(3) Constructed and established a campaign of public education in medical matters, along with a Field Secretary who has further developed that plan into the best public medical educational program in operation anywhere in this country.

(4) Set up a *Radio Broadcasting* public educational program and carried it personally for 4 years, and until each of the 5 county societies within easy reach of broadcasting facilities had undertaken to carry such programs.

(5) Wrote and launched a series of "Primers" having further educational value and an inestimable benefit to the profession in the nature of improving the public relations of physicians.

(6) Designed and arranged for the presentation of a plan of Post-Graduate Medical Courses of a unique character, and superior to anything of the kind ever given elsewhere, in that the lectures are delivered, practically on the door-steps of any physician practicing in the state—and at a price so low as to be within the reach of the poorest of our members.

(7) Planned and inaugurated an antidiphtheria campaign which was of tremendous import to public welfare, and of considerable cash value to prac-

ticing physicians; it having been estimated that approximately \$1,000,000 was paid to physicians for immunization service to private patients.

(8) Organized the Annual Conference of County Society Secretaries and Reporters, which has already proved itself beneficial to every one of the 21 county societies.

(9) Organized the Tristate Medical Conference, from which the State Societies of New York, Pennsylvania and New Jersey have obtained and continue to derive great benefits which sift through to the individual members of every county society.

(10) Organized and set upon its feet the Woman's Auxiliary; from which much is expected to come in the course of time.

(11) Aided, to some extent at least, in protecting the Society's interests and the public's welfare against legislation of a dangerous character.

Finally, we recognize the fact that the Journal is yours, and you have the right to do with it as you please; and, furthermore, that the Public Educational Program is not a necessity for you to carry—but has been a good-will offering, which you may discontinue at your own pleasure. But, with the record of achievements, as reviewed in this report, we ask you whether—"having put your hand to the plow, will you now turn back?"

Respectfully submitted,

Henry O. Reik, M.D.,
Editor and Executive Secretary.

It was regularly moved and seconded that the report of the Executive Secretary be received, and that motion was duly adopted.

President Hagerty: The suggestion has been made, a very happy one, that inasmuch as the American Medical Association, responding to a request from the British Medical Association—that 3 Delegates be appointed to represent the medical profession of the United States, at the Centenary of the British Medical Association, to be celebrated in London, July 24-30, 1932—has named Dr. Henry O. Reik as 1 of those 3 Official Delegates, the Medical Society of New Jersey, heartily approving his selection for that mission, now requests him to convey to our British confrères the congratulations and felicitations of the oldest medical society in this country, and confers upon him the authorization so to do.

The motion was regularly made and seconded, was put to a vote, and was adopted unanimously.

Secretary Morrison announced a joint conference (of the Special Advisory Committee) with a committee from the Woman's Auxiliary, to be held at 4 o'clock.

President Hagerty: Next is the Report of the Board of Trustees, by Dr. Nafey.

Dr. Nafey read the Report of the Board of Trustees, which follows:

Report of the Board of Trustees

To the House of Delegates of the
Medical Society of New Jersey:

Gentlemen: It is my sad duty to report the loss by death of 2 members of the State Society during the past year, Dr. Archibald Mercer, of New-

ark, and Dr. Norton L. Wilson, of Elizabeth. The Board of Trustees at the regular meeting on December 21, 1931, received the report of their deceased and, on motion, appointed a committee to formulate resolutions, a copy of which was spread upon the minutes.

Following the closing of the Annual Meeting, held at Asbury Park in June 1931, a meeting of the newly-elected Board was held at Trenton for the purpose of organization. Dr. Andrew F. McBride was duly nominated and elected Chairman, and Dr. H. W. Nafey, as Secretary.

The 2 vacancies on the Budget and Finance Committee, representing the Board of Trustees, were filled as follows: Dr. W. G. Herrman was elected to succeed himself, for the regular term and Dr. W. P. Eagleton was elected to fill the unexpired term of Dr. Hunter, deceased.

At this meeting a report was received from Dr. W. G. Herrman covering the organization of a Section on Radiology in the State Society. Following this report, the Board of Trustees passed a motion granting permission for the establishment of a Radiologic Section on lines similar to the Sections of Pediatrics, and Ophthalmology and Otorhinolaryngology.

The Board of Trustees passed a resolution making it mandatory that the Secretary of the Board notify officers-elect and receive their acceptance, in writing, of the office to which they have been elected.

A request was received from the Chairman of the Committee on Scientific Program asking that authorization be given, and an appropriation of necessary funds be made, for a scientific exhibit at the Annual Meeting of the State Society. An appropriation of \$500 was authorized, on motion, by the Board of Trustees to put this scientific program and exhibit into effect at our meeting this year at Atlantic City.

A report was received by this Board from Dr. Marsh, Treasurer of the State Society, in which he pointed out that it would be practicable at this time to make a credit of \$2 each to all members of the State Society, for the year 1931-32, in view of the present satisfactory condition of the treasury. A resolution was carried by which a credit of \$2 per capita on account of the assessment for 1932 was established out of the unexpended balance of the treasury. These credits have accordingly been made to each of the Component Societies.

The Board of Trustees adopted a plan for the remuneration of the Program and Arrangements Committee, fixing the sum of \$300 to be paid for this work not including expenses. This action replaces the plan which had been in operation to this time, namely, 20% of the gross receipts.

Resolutions from the Essex County Medical Society on the Relationship of Medical Staff to Hospital Board of Trustees, were received and endorsed by us. Our further action, in addition to this endorsement, was to refer the resolutions to the President of the State Society for whatever additional action may seem to him appropriate. The resolutions are as follows:

The Essex County Medical Society welcomes the opportunity to state what it believes to be the general principle that should underlie the relations of Boards of Trustees and Medical Staffs in the solution of hospital problems.

Hospitals exist principally for the medical and surgical care of the sick, which care must be in charge of competent physicians.

Boards of Trustees of hospitals are made up of

public spirited men and women who have a sincere desire to serve the community, and are banded together in order that they may make possible the service that physicians give to patients.

Medical Staffs are made up of physicians whose relative positions on the Staffs vary according as years of experience and service, and their ability, may have qualified them.

Physicians, by reason of their trained and experienced knowledge of disease and its treatment, and because of their daily contact with hospitals and patients, are better qualified to understand and solve the professional problems of hospitals; and because of their intimate knowledge of each other and of each other's work, are the only ones able to correctly judge the relative abilities of physicians.

Boards of Trustees and Medical Staffs, both have special functions, some of which are distinct. There are, however, certain functions that should be performed jointly by Trustees, who have the executive authority, and by the Staff, which has the expert knowledge. All problems connected with the essential purpose of a hospital, that is with the service which physicians give to patients, are better understood by the physicians and should be solved jointly by Trustees and Staff; also, problems connected with changes in the Medical Staff of a hospital are better understood by the physicians and should be solved by coöperation of Trustees and Staff.

We believe, moreover, that the Senior Staff of any hospital, because of its many years of daily contact with the hospital, and because of the vast amount of service it has given to patients of the hospital, has a heartfelt interest in the welfare of that hospital. The hospital becomes an integral part of the spiritual life of each Trustee and Staff member. We believe that in shaping the administration of hospitals, physicians should have a large share, not because the physicians wish it but because hospitals need their advice.

We, therefore, believe that Medical Staffs should have adequate representation on Boards of Trustees. We believe that there should be no change in the medical policy of a hospital without proper consultation with the Staff. We believe that no physician who has efficiently, faithfully and loyally served on a Hospital Staff should be removed or demoted without proper consultation with representative members of the Staff.

We believe that the Medical Profession should present a united front in support of the foregoing general principles, which are in the interest of the hospitals which the profession dearly loves and of the patients whom they serve.

The Board of Trustees appointed a committee to investigate and to report on a plan to work out a proper set-up of sub-committees to enable this Board to maintain contact with the various committees and agencies of the State Society. This the Board of Trustees unanimously adopted as submitted:

The plan is (1) to make the Society with all its activities revolve around the President during the year of his presidency; (2) to familiarize the incoming presidents with certain branches of the organization; (3) to have the Board of Trustees at each meeting in constant touch with the activities of the Society, as well as, (4) to have the chairmen of the important committees know what the Trustees are doing.

(1) To have the Executive Secretary's office and all the activities under it, supervised by the President of the Society who shall make a report of the

activities of the Society at each meeting of the Board. The duties of the Executive Secretary are to be defined by the Chairman of the Committee, Dr. Green, using as a basis memoranda furnished by the Executive Secretary of the duties he is now performing.

(2) To have the Woman's Auxiliary under the supervision of the President, who shall deal directly with the President of the Woman's Auxiliary.

(3) To have the Chairman of the Finance Committee present at every meeting of the Board of Trustees at which financial matters are to be discussed.

(4) To have the Chairman of the Publication Committee present at all meetings of the Board of Trustees.

(5) To have the Committee on Program and Arrangements submit a report at the third and fourth meetings to the Chairman of the Board of Trustees; the third will inform the Board of what the Program and Arrangements Committee has decided to do; and, the fourth to show what has been done.

(6) To have the First, Second and Third Vice-Presidents (as they are invited to sit in with the Welfare Committee) the Committee on Liaison between the Board of Trustees and to report to the Board of Trustees the activities of the Welfare Committee.

(7) To have the Committee on Medical Education and Hospital Activities Chairman make a report which is to be submitted at the second and fourth meetings, to the Chairman of the Board of Trustees—the second to advise what is planned to do for the year, and the fourth to show what has been accomplished.

(8) To have the special committees report directly to the President who, himself, shall report the activities to the Board of Trustees.

In conformity with this plan, the secretaries of all Standing Committees have submitted their annual reports and these have already been published in the May number of the State Journal.

At the meeting of the Board held in Atlantic City on the evening of June 14, a communication from the Gloucester County Medical Society was received, in which that Society placed itself on record, by resolution, opposing any reduction in the size or quality of the Journal of the State Society. Further, if the need for economy is great, they are in favor of a material reduction in the salary of the Field Secretary, or the temporary or permanent abolition of this office. The resolution was received and placed on file.

The Chairman of the Committee on Publication presented the annual report of that committee which will be presented here today, and which shows a very satisfactory year in relation to the publication of the Journal.

It so happens that the New Jersey Pharmaceutical Association is meeting in this city at this time for its Annual Convention at the Hotel Ambassador.

The Secretary of the Board of Trustees has sent to the President of the Pharmaceutical Association, Mr. William A. Chamberlin, the following congratulatory communication: "The New Jersey State Medical Society, in Atlantic City assembled, extends to the New Jersey Pharmaceutical Association

our hearty congratulations, extending to you also our sincere felicitations and best wishes."

H. W. Nafey, M.D.,
Secretary of the Board of Trustees

All of which is respectfully submitted for the Board of Trustees by

Andrew F. McBride, M.D.,
Chairman of the Board of Trustees

It was regularly moved and seconded that the Report of the Board of Trustees be received, and the motion was carried.

President Hagerty: It has been suggested to the Chair that Dr. Pinneo asks for special consideration of the House for a resolution.

Dr. Pinneo: The following resolution is suggested to the House of Delegates:

Resolved, (1) That inasmuch as the business management of hospitals is intimately associated with the medical and surgical care of the patients (for which hospitals exist), the Medical Staff of a hospital has a right to share with the Board of Trustees the management of all matters distinctly medical and, to this end, should be represented on boards or committees or by effective mutual conferences; and

(2) That approval is hereby given to the stand taken by the Essex County Medical Society and its resolutions in support of the action of the Medical Staff of the Hospital and Home for Crippled Children; and we furthermore feel that all members of this State Society should support these principles in their personal associations with hospitals.

I move the adoption of this resolution.

The motion was regularly seconded, put to vote, and carried.

Secretary Morrison: I move that these resolutions be published in the Journal and that a copy of them be sent to the President of the Board of Directors of each of the hospitals in the State of New Jersey, stating that this is the opinion of organized medicine in New Jersey.

The motion was regularly seconded.

Dr. Wells P. Eagleton: I think that in the original resolution adopted by the Essex County Medical Society, there was a statement of principles that should be incorporated, and we ought not simply pass a resolution endorsing the action of the Essex County Society, but the principles enunciated in Essex County in relation to this matter, the principles of relationship of hospital management to medical staff, should be incorporated in this resolution and sent to all members.

Secretary Morrison: I expressed Dr. Eagleton's suggestion in my motion.

President Hagerty: I thought that was what we had in mind when I asked Dr. Pinneo to bring the matter to the attention of the House of Delegates.

The next order of business is the Report of the Welfare Committee, by its chairman, Dr. Lippincott.

Dr. A. Haines Lippincott read the Report of the Welfare Committee, as follows:

Report of the Welfare Committee

The newly appointed Welfare Committee, at the direction of the President, Dr. John F. Hagerty, met in Trenton for the purpose of organizing and electing its Chairman. Following this, the Executive Secretary, Dr. Henry O. Reik, presented his report, calling our attention to matters of importance that had been held over from last year; namely, the question of an amendment to the Hospital Lien Law, and the plan presented to the State Society in June last, by Dr. E. G. Waters, for the *regulation of specialism*. Our President, Dr. Hagerty, in coöperation with Dr. Waters and other members of this society, has given a great deal of thought to this matter, and the results of all this study will be presented to the House of Delegates for action during this session.

The Director of Public Health, Dr. J. Lynn Mahaffey, was invited to attend all meetings of the Welfare Committee.

At the request of our President, a Special Committee, with Dr. Paul M. Mecray as Chairman, was appointed for the purpose of keeping in touch with the General Assembly of New Jersey, and when in session at Trenton, to study proposed legislation and to advise the Welfare Committee when any particular action may seem urgently necessary.

The question of amending the Medical Practice Act was discussed and a committee, with Dr. Andrew F. McBride as Chairman, was appointed to consider this matter and report its conclusions. This Committee sent to the Officers of the Medical Society of New Jersey, and to Members of the Welfare Committee, a questionnaire embodying questions other than those on amending the Medical Practice Act; viz., the Doctor's Title Bill, Annual Registration, and provision for a Grievance Committee. The resulting recommendation was to the effect that this did not seem to be an opportune time for the Medical Society of New Jersey to introduce any medical legislation.

Our Executive Secretary, Dr. Reik, secured copies of all Bills pertaining to medical practice or public health, and after careful study of each Bill reported to the Welfare Committee as to which seemed worthy of support and which were of detrimental character. His recommendations were adopted and his plan of action was approved; i.e. to send to all State Senators and Assemblymen a letter setting forth the State Medical Society's position on each of those Bills, with our reasons for approving or disapproving, in each instance.

Dr. Morrison and Dr. Reik both, in response to an urgent request from Dr. Mahaffey, were speakers at a public hearing on Assembly Bill 257, defending the State Board of Health against this Act to create a Department of Health; the purpose of converting the present *Board* into a *Department* being in conformity with the general plans of the Governor to re-organize the state government. Dr. Reik was also called upon by Commissioner Ellis to defend the Department of Institutions and Agencies, against legislation which might have seriously affected that organization. Furthermore, Dr. Reik's services, or his advice, were solicited also

by the State Dental Society, the State Pharmaceutical Association, and the Society of Chiroprodists.

It was decided, by the Welfare Committee, to continue, as individual members, the same practice as in the past few years; namely, to defend our stand on medical legislation by personal contact with their Senator and Assemblymen, members of the Legislature in their home counties.

I am pleased to report that no Bill we have opposed has been enacted into law.

The Chairman urges all members of the Society, and especially members of the Welfare Committee, to get in touch, personally, in their home counties, with their respective legislators whenever called upon by the Welfare Committee for action on problems which affect the health of the citizens of New Jersey.

Component societies that have a Legislative Committee should see to it that the member from their county on the Welfare Committee is a member of the county legislative committee.

As Chairman of the Welfare Committee, I sincerely thank our many friends, in both the Assembly and the Senate, of our State Legislature, who have supported the position taken by the Welfare Committee in all legislative matters.

The program of the Welfare Committee during the past few years, as respects medical legislation, has been one of education through personal contact with the members of the Assembly and Senate. The very able and thorough program of the Field Secretary, Mrs. Taneyhill, in her talks before lay bodies throughout the state, and the influence of The Woman's Auxiliary with its many activities, are now being felt. All these agencies are bound, ultimately, to affect the conclusions of our law-makers, and are even now having a beneficial influence on the welfare of our citizens.

Respectfully submitted,

A. Haines Lippincott, M.D.,

Chairman

It was regularly moved and seconded that the Report of the Welfare Committee be received and the motion was carried.

President Hagerty: The next order of business is the Report of the Judicial Council, Dr. Beling.

Dr. Christopher C. Beling read the Report of the Judicial Council, which follows:

Report of the Judicial Council

First District

Regular meetings have been held by the Medical Societies of Essex, Morris, Union and Warren Counties.

The activities of these Societies have already been detailed by their respective Reporters and published in the Journal of the State Society.

No District Councilor Meeting was held this year.

Essex County Society held a special meeting in December 1931, to consider what the attitude of the profession should be toward a situation that arose recently at the Hospital and Home for Crippled Children in Newark, N. J. A full report of this meeting was published in the Journal of January 1932. The Board of Trustees has also already taken cognizance of this matter.

Essex County Society has devoted its time and energy mainly to the discussion of economic and

social problems of interest to the profession. The scientific medical work has been presented at the stated and sectional meetings of the Academy of Medicine of Northern New Jersey.

A new plan of holding clinical meetings of the sections in various hospitals in Northern New Jersey, was attempted this year on the suggestion of Dr. Eagleton, the President of the Academy.

The profession in the First District is well organized and maintaining high standards.

Christopher C. Beling,
Councilor First District.

Second Councilor District

Individually, the 4 societies have been progressive and active.

Hudson and Bergen have both adopted *Junior or Associate memberships* this year, and Hudson held an *Initiation Dinner* for its new members which was a signal success. Eight instructive talks, 5 minutes each, were given by Past-Presidents to inform them as to proper relationships to the society, the patient and the public.

Hudson County has also inaugurated a campaign of advertising in the newspapers, by publishing a list of the members of the Hudson County Medical Society. In addition, its meetings and public relations work have been of particularly high standard.

Passaic County has had some notable meetings under the leadership of Dr. Roemer, and Dr. Morris Fishbein was the speaker at one successful meeting.

The Sussex County Society, with its small group, has nevertheless kept active.

Bergen County has been intensifying its organization by the appointment of a paid Executive Secretary and by the diversified activities of its committees; such as the school physicians, cancer clinics, public health nursing, ethics, public relations, free clinics and others.

One group meeting of 48 Delegates and Officers of the 4 societies, was held as the Second Annual Councilor District Meeting, at the Preakness Hills Country Club, in Paterson. Councilors Beling and Scammell attended. The program was as follows: What the State Organization Is Accomplishing, F. J. Quigley, of Hudson; Compensation Problems, A. F. McBride, of Passaic; The Increase in Malpractice Suits, S. T. Snedecor, of Bergen; Medical Testimony, E. G. Waters, of Hudson; Legislation to Control *Gyp* Clinics, F. Manley, of Passaic; Ways to Cut Medical Cost, C. Littwin, of Bergen; Junior Membership—A Uniform Plan, B. T. D. Schwarz, of Hudson; Nursing Activities in Small Counties, F. P. Wilbur, of Sussex; Control of Limited and Unlicensed Practitioners, A. Liva, of Bergen.

No large increase in liability suits against the physicians in this district has been discernible by the Councilor.

Spencer T. Snedecor,
Councilor Second District.

The Third District

The component societies of this District were all visited during the year. Reports from the Secretaries of these societies show that they are all in a flourishing condition, and maintaining a high standard of scientific work. There were no matters of importance brought to the official knowledge of the Councilor.

(Signed) F. G. Scammell,
Councilor, Third District.

Fourth District

I herewith submit my report for the Fourth Judicial District for the past year:

There have been no damage suits reported during the year. Our District Councilor's meeting, through the courtesy of Dr. Davies, will be held at the Lakehurst Naval Station the latter part of September. We are planning an interesting program, and at the same time an opportunity will be given to inspect the Akron. Our county societies are all in very good condition.

Marcus W. Newcomb,
Councilor, Fourth District.

Fifth District

All the Component Societies of the District were visited, and all are in good condition; and the scientific programs were of excellent caliber.

There were no malpractice suits. No Councilor District meeting was held on account of the post-graduate courses, but a Councilor meeting will be held in the Fall.

It has been a great pleasure to serve as a Judicial Councilor this past year.

Aldrich C. Crowe,
Councilor, Fifth District.

Dr. Beling: I move the adoption of this report.

The motion was regularly seconded, put to vote, and carried.

President Hagerty: Next is the Report of the Treasurer, Dr. Marsh.

Dr. Elias J. Marsh: Mr. President, the Annual Report of the Treasurer was published last week in the Journal, so all members of the Society have had an opportunity to read it, and, further, printed copies of it were distributed to all members here this morning. Additional copies are available if anyone wishes them; so, it is not necessary to read it.

I want, however, to call attention to 2 points. By a slight mistake, in preparing copy for the printer, the amount received from the Publication Committee and, consequently, the total receipts and the balance on hand, as printed, are too small by the amount of 1 cent; the actual balance is 1 cent greater than shown in the printed report.

The other thing I would like to speak about is at the bottom of the page—"Reconciliation of the Budget",—where it speaks of "estimated income"; that is the income estimated by the Budget Committee last year on the basis of an assessment of \$15 per capita. Most, if not all, members paid their County Treasurers an assessment of \$15 per capita, but as you heard Dr. Nafey say a few minutes ago, the Trustees voted a credit of \$2 per capita, which most of you have not gotten yet, but it is in the hands of your County Treasurers for your credit; so, we have to deduct that rebate of \$2 per capita, amounting to \$5412, as shown,

which gives us an *actual* income, that much less than the *estimated* income.

Annual Report of Treasurer

1932

PERMANENT FUND

DR.

June 1, 1931—

2 M 1st Liberty Loan 3½% bonds..	\$2000.00
4 M 4th Liberty Loan 4¼% bonds..	4000.00
Mortgage Certificates, Investors Title & Mortgage Guarantee Company..	2700.00
Mortgage Certificate, Trenton Mortgage & Title Guarantee Company..	3000.00

June 2—

Cash from Reserve	3000.00
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August 31—

Cash from General Account	300.00
	<hr/>
	\$15,000.00

CR.

May 31, 1932—

2 M 1st Liberty Loan 3½% bonds..	\$2000.00
4 M 4th Liberty Loan 4¼% bonds..	4000.00
Mortgage Certificates, Investors Title & Mortgage Guarantee Company..	3000.00
Mortgage Certificates, Trenton Mortgage & Title Guarantee Company..	3000.00
Certificate of Deposit, First National Bank of Paterson, 3½%	3000.00
	<hr/>
	\$15,000.00

GENERAL ACCOUNT

RECEIPTS

Balance, June 1, 1931	\$24,521.13
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Assessment—

Atlantic	\$1682
Bergen	2630
Burlington	695
Camden	1793
Cape May	247
Cumberland	624
Essex	9704
Gloucester	468
Hudson	5752
Hunterdon	364
Mercer	2030
Middlesex	1469
Monmouth	1225
Morris	1055
Ocean	260
Passaic	2877
Salem	182
Somerset	598
Sussex	247
Union	2909
Warren	273

37,084.00

Publication Committee	8,857.60
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Interest	1,370.18
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Health charts sold	1.85
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\$71,834.76

PAYMENTS

For Publication Committee	\$14,492.92
" Publication, special (Addressograph)	297.87
" Welfare Committee	852.51
" Credentials Committee	427.78
" Executive Department:	
Salaries	\$14,000.00
Travel	2,000.00
Office and rent	3,640.37
	<hr/>
	19,640.37
" Treasurer's Office	64.75
" Secretary:	
Salary	\$ 1500.00
Office and Expenses	2183.95
	<hr/>
	3,683.95
" Board of Trustees	40.02
" Printing and stationery	1,720.34
" Tri-State Conference	153.26
" County Secretaries' Conference	145.43
" Funerals: Drs. Mercer, Hunter and Wilson	47.80
Transferred to Permanent Fund	300.00
Transferred to Executive Dep't Current Fund	200.00
Balance, May 31, 1932	29,767.76
	<hr/>
	\$71,834.76

RECONCILIATION WITH BUDGET

Expected Income	\$49,940.00
Credit \$2 per capita on assessment	5,412.00

\$44,528.00

Actual Income	47,313.63
Appropriations	48,500.00
Expenditures	42,067.00
Operating Net Balance:	
Apparent	6,218.63
Actual	3,806.63

Respectfully submitted,

E. J. Marsh,

Treasurer

It was regularly moved and seconded that the Treasurer's Report be accepted, and the motion was adopted.

President Hagerty: The next order of business is the Report of the Committee on Finance and Budget, Dr. North.

Dr. Harry R. North: Mr. President and Delegates: As Chairman of the Committee on Budget and Finance, I have the honor of reporting to you our deliberations of last night, for your approval or rejection. This, I might say, is in the interest of economy. I will read you the amounts we have set for next year's budget, and then make due explanation.

Publication Committee	\$13,500
Welfare Committee	500
Executive Travel Expense	800
Executive Salaries	8,000
Executive Office and Rent	3,650
Tristate Conference	150
Credentials Committee	400
Printing and Stationery	1,800
Treasurer	75
Secretary's Salary	1,500
Secretary's Expenses	2,200
A. M. A. Delegates	475
County Secretaries	150
Contingent Fund	2,500
Total.....	\$35,700

This total is in contrast to that of last year which was \$45,500, and I think it is due you that we explain the differences. The Publication Committee has been cut 10% from \$15,000. The Welfare Committee has been dropped from \$750 to \$500. Usually, the Executive Secretary has had a travel account of \$2,000 for himself and the Field Secretary. It has been estimated that he used last year about \$800 and she \$1200, so we have appropriated \$800 for Dr. Reik alone.

The combined salaries in the Executive Secretary's Department have been formerly \$14,000, but that has been reduced to \$8000 and the Field Secretary is eliminated. Dr. Reik's office allowance remains the same. The printing and stationery fund has been reduced \$200. The Treasurer has been reduced \$25. The A. M. A. Delegates have a little larger account this year because we have to pay out of this year's budget the travel expense to New Orleans, which was considerably more than that of last year to Philadelphia. The contingent fund remains the same.

There is, in this plan, a saving of \$9800, which means approximately \$3 per member, and on this basis your Committee suggests an assessment of \$10 per member.

It was regularly moved and seconded that the report be received and adopted.

Dr. Andrew F. McBride: Recognizing, as I do, the importance of economy, I think we are making a serious mistake if we eliminate the services of the Field Secretary. You have heard her report today. You have heard the comments, made by other speakers, concerning her work. I am not so much concerned about who does that work as I am that the work shall be continued. I think this proposal is false economy, and I think that if we adopt the report of the Budget and Finance Committee, as presented—and I mean no reflection upon the members of that Committee—we would be committing a very serious mistake.

I quite agree with the Executive Secretary, when he says that if we now discontinue the

work, it will be very difficult to take it up again. It has taken several years to develop it to its present standing, and to summarily dismiss it, do away with it, would, in my judgment, be uneconomic. It wouldn't be economy, at all; but, just the contrary, and I believe this Society would soon regret its action. For that reason, I sincerely hope you will not do away with this work, which is considered, by those who know the value of such things, so very important. I speak from considerable experience, and I think there is no work in which this Society is engaged, more important than the educational program as it has been carried on for 6 or 7 years past. Don't let us now make a mistake. If we have to economize, let us be sure that our action will result in real economy, and not in something that we will later on regret.

Dr. William G. Schauffler: I would like to emphasize, very strongly, what Dr. McBride has said. It has come to me, in many ways through the state, that this work is almost, if not the most, important work that this Society is doing. You and I know that we doctors don't reach the public in the matter of medical education. You and I know that many of us are too busy, or we have not the interest, to go and speak in school meetings and in Parent-Teacher Association meetings, and at Kiwanis Clubs, Rotary Clubs, and other such places. In the first place, many of us *don't know how* to do it; in the second place, many of us think *we are too busy* to do it; but where any of you have been asked to do this, and have done it, you have found a response, and a desire to know, that is extraordinary.

We have delegated this work to our Field Secretary, who knows how to do it, who has built up a reputation, who has the confidence of a large proportion of the educators in this state, and of the parents in this state, and if we stop this now, all that work will go for nothing. I ask you, personally, are there enough medical men in this Society to do this work? If the majority of the members of our Society could and would take it over themselves, and give of their time and attention and interest, it wouldn't be necessary to have a secretary of this kind, but we don't do it, and you know perfectly well you and I will not do it. Let us not make the mistake of letting this very important work go by the board, for the saving of a few cents per capita.

Dr. Ralph K. Hollinshed: The Secretary of the Board of Trustees made a statement, that the Gloucester County Society had gone on record as being opposed to any reduction in the size or quality of the Journal. We were

led to believe that economy was necessary; therefore, we made another resolution, a further resolution, and said that *if economy was necessary*, we were in favor of a reduction in the salary of the Field Secretary or the temporary or permanent abolition of the office. We did not mean that we were not in favor of continuing the work of the Field Secretary, but that, *if the need for economy was great*, we would rather see the economy practiced in that field than to have the Journal curtailed. Now, according to the Report of the Treasurer, according to the reports of all the committees that have been brought up here and talked about, *the Society has never been in such a flourishing condition as it is today*. The expenses have all been met. The dues have all been paid. Everybody seems to be perfectly happy. So, I can't see why, at this time in the history of this Society, it should be so necessary to economize. And, it is only fair—to Mrs. Taneyhill, and to the Gloucester County Medical Society—to say that the second of our resolutions would not have been presented if we had known the facts about this Society's financial condition.

Dr. A. Haines Lippincott: I want to emphasize what Dr. McBride, and Dr. Schauffler, and Dr. Hollinshed have said. I have had peculiar chances and opportunities for learning something of the work done by our Field Secretary and it would seem to me a grave mistake if this Society should do away with her work. She is trained in this work and, as Dr. Schauffler says, there is hardly a physician practicing in this state who, if called upon by a lay organization for a health talk, would be able to do it as well as Mrs. Taneyhill, who has given her attention and study to this type of educational work.

It is not for the present time, only, that this work is effective. She comes in contact with the school children and with lay organizations which we, as doctors, could not contact, and her educative talks before the school children and the Parent-Teacher Associations alone, are bound to be of great benefit to us, as practicing physicians, because she teaches them more about the family doctor's relation to disease, and more about the prevention of diseases than we dare or could. It is not only what benefit we get today that is valuable, but also what will come about in the future, through the children she teaches, and I must say, I hope this Society will not do away with her work.

Dr. Stephen T. Quinn: It seems to me this is a vitally important matter, and I am glad to be here at this time to hear the matter discussed.

We have absolute confidence in our Budget Committee, and our Board of Trustees, and while we may feel, with them, the need and the urge for cutting down expenses, it would seem to me that, before we cut the expenses in the manner suggested, we should find out what that would really mean to the Society.

Every man connected with this Society since Dr. Reik's association with it, has certainly known how much the Society has progressed; that all of its various activities since he came to us, especially its legislative activities, have been very much better managed; and that all the professional interests and public relations of the medical profession, have, through him, been greatly advanced. I want to endorse his work as strongly as possible.

Of course, if there was any necessity for making a cut in his salary or his general budget, and the Doctor is willing to accept it, that is another matter, but I believe the Society would be making a great mistake if it tampered with the work of the Executive Secretary or of the Field Secretary. Her work, too, as the speakers before me have stated, has been done through an acquaintance with the lay people and with our mutual problems, and she has the ability and has developed the means of reaching people whom the doctors cannot reach; and in local communities, if the doctor were to try contacting those same organizations, he would not be heard with such interest, and I am afraid it would be imputed, many times, that he was doing it because there was some personal professional interest in it for himself.

With regard to economy, it seems to me the Treasurer reported a balance of \$24,000 in hand, and the treasury has been so well off this past year that it remitted back to the individual members \$2 of their dues, it is difficult to understand why the Committee thought it necessary to curtail expenses so much and to reduce our annual dues by \$3 a year. It seems to me that is false economy, and this Society would be better off in spending the \$3 a year to get such service than to cut down the annual dues \$3 and put us back 10 years in progress. No other State Medical Society in the United States has made the progress that this Society has during Dr. Reik's handling of our affairs, and this is no time to interfere with his plans. I want to mention one other thing. Dr. Morrison reported that the Society membership has increased by more than 130. That means that the State is growing, and it is growing in its professional men, and it will continue to grow, and so will this Society. I see no reason why, at this time, we need exercise this "so-called" economy.

We may have a "so-called" depression at the present time, but that won't last forever; in 1 year, or 2, or possibly 3, we will have forgotten all about it.

Dr. Schwarz: It would hardly seem necessary to add further to the remarks already made, but in our section of Hudson County a good many of our members have not become acquainted with the work that Mrs. Taneyhill has done. I was privileged to be at one of the meetings of the Jersey City Health Council where she delivered a splendid talk. In view of the fact that our County Societies are expending a considerable amount of their own fund in advertising different objectives in which the medical profession is interested, and in view of the fact, too, that medical men are, in a large measure, either unfitted by temperament or have not the time to give their services in this cause, which is directly beneficial to the doctors, I believe, also, that it would be unwise to curtail this work in the way that has been proposed. I would say, however, that I think some sections of the State, like Hudson County, should be privileged to have the services of Mrs. Taneyhill, before certain of our organizations more regularly, and in that way we, who contribute a large portion of the dues to this Society, would feel that we were getting some direct returns.

Secretary Morrison: Mr. President, may I say a few words? In Mrs. Taneyhill's excellent report, this afternoon, she tells us that she has made 270 talks in the State of New Jersey and has addressed 81,000 people. This 81,000 people includes business men's associations, women's clubs, and school children, parent-teacher associations and teachers' organizations. The bulk of these talks have been given to high school pupils, the boys and girls who are the coming fathers and mothers of the population of New Jersey.

In her talk on "quackery" she has shown these people that more than \$300,000,000 is spent annually in the United States on patent medicines and quackery. In all her talks she has indicated that in every variation from health the proper course to pursue is—go to your family doctor.

How far this work of hers reaches, you, as physicians, are not able to comprehend, unless you can look at medical affairs from the people's point of view. How much they welcome her addresses, is brought home to us in hundreds of instances. I have received just recently, without solicitation, 15 letters, commendatory of her work, from Superintendents of schools. One Superintendent of a school in East Orange said: "Her talk on common colds was so fine that we are making common

colds the basis of all our health work in the schools in East Orange in the coming year, and we ask you now to reserve her services for us for the year 1932-33." The other letters to me are all of the same character, and Dr. Reik has received as many more.

No other State Society in the Union is doing anything like the amount of this advanced public educational medical work that she is conducting. It is one of the outstanding features among the accomplishments of the Medical Society of New Jersey, and the crux of the situation is this: Shall this educational program be continued or shall we become back-sliders?

What is the necessity for this economy suddenly proposed by the Committee on Finance and Budget? Since the rumor—that he was to be attacked—started, about a month ago, requests have come to me from 4 County Societies, and been referred to the Chairman of the Finance Committee, asking that the activities of the Journal, and Dr. Reik's activities in general, be not interfered with; but no resolution has come, from any County Society, asking that Dr. Reik's services be cut down. No resolution has come to any of the officers from any Component Society asking that this educational plan and campaign be discontinued or that Mrs. Taneyhill's services be discontinued. Why this question of economy?

The Treasurer's Report shows that we have a balance of \$24,000, after a rebate of \$2 per capita, or there would have been a total of \$29,000. And, with the rebate, and with all bills paid, we have today, a cash balance \$5,000 greater than ever before. As a matter of fact, the assessment of dues can be cut this year to \$11 without having to reduce our expenditures in any way.

I want to say, also, that Mrs. Taneyhill is peculiarly fitted for this type of work. She is a clergyman's daughter and a physician's widow. She has lived and been educated in medical circles through most of her life, and she knows how to present these subjects far better than any physician in the state of New Jersey. The effects of her work are very, very far-reaching. I believe it would be false economy, and an economy not required, to cut her work in any way, or to cut any of the things that Dr. Reik has started and established.

Dr. Samuel A. Cosgrove (Jersey City): Mr. President, I move, as an amendment to the motion before the House, that the Committee Report in question be accepted, and approved in part, but that it be referred back to the Committee for revision, *with instructions* that: (1) there must be no reduction in

the salaries of the Editor-Executive Secretary or the Field Secretary, and no interference of any kind with the Journal, the educational campaign, or any other of the projects entrusted to and under the direction of Dr. Reik; and, further, that the budget allowance for all such items shall be the same as for the year just passed; and *with instructions* that (2) in the matter of assessment of dues, the Committee or the Board of Trustees, one or both, as may be proper, shall revise that portion of the report and take such action as may be necessary to provide the funds required to cover the increased budget.

The motion was seconded.

The question was called for.

President Hagerty: You are familiar with the amendment as proposed. All in favor of the amendment, signify by saying "Aye"; contrary "No". The Chair decides the amendment is carried.

Several Members: Division!

President Hagerty: The Chair feels that the amendment was carried, without any doubt at all, but, if you insist (interrupted).

Several Members: Division!

President Hagerty: Very well. All those in favor of the amendment, please raise their right hands.

Secretary Morrison (counting raised hands): Only members of the House of Delegates are entitled to vote. The count is 59, Mr. President.

President Hagerty: All those opposed, will please raise their right hands.

Secretary Morrison (counting raised hands): The count is 20, Mr. President.

President Hagerty: The Chair declares the amendment carried, by a vote of 59 to 20. (Applause.) We will now vote on the original motion, the adoption of the Report of the Committee on Finance and Budget, as amended.

The motion, to adopt the report as amended, was put to a vote and was carried.

President Hagerty: We will now have the Report of the Committee on Publication, Dr. Barkhorn.

Dr. Barkhorn read the report, which follows.

Report of Publication Committee

The Publication Committee again reports a very successful year. Our total expense for the year was \$14,492.92; our net receipts were \$8857.60; leaving a deficit of \$5635.32 which was paid by the State Society. As we have a membership of about 2830, this makes the cost of the Journal \$1.99 per member, a material reduction from any previous year.

During the year we published 122 original articles, most of which were written by our own

members; using 770 pages to do so. In addition, we published 392 pages of editorials, society reports, and collateral reading; and 460 pages of advertisements. Due to the coöperation of the Editor, and of all the officers, committees and members, our Journal is one of the outstanding State Journals of the country. We feel that its wide appeal to members, many of whom at this time are omitting subscriptions to some of their other Journals, should be continued without curtailing any of its departments.

We respectfully ask for \$14,500 as our next budget.

1931-1932

RECEIPTS

Advertising	\$10,924.83
Coöperative Medical Adv. Bureau rebate..	490.00
Extra subscriptions	59.10
Sale of Journal	13.48
Bills receivable	1,117.51
	<hr/>
	\$12,604.92

EXPENDITURES

Commissions paid Coöperative	\$ 1,034.07
Commissions paid local agents	393.90
Discounts	245.36
Chairman's salary	500.00
Chairman's expenses	120.00
Printing and mailing of Journal	13,472.34
Reprints	241.00
Index	145.00
Addressograph	14.58
	<hr/>
	\$16,166.25

Comparative Statement

	1930-31	1931-32
Advertising receipts	\$11,323.40	\$10,924.83
Subscriptions, extra	63.15	59.10
Sale of Journal	14.97	13.48
Printing and mailing of Journal	13,436.33	13,472.34
Reprints	270.22	241.00
Commissions	1,237.74	1,427.97
Discounts	252.35	245.36

Summary

Amount of advertising secured by Coöperative	\$ 5,172.77
Amount of advertising secured locally....	4,895.86
Amount of discount and commission allowed Coöperative	1,240.88
Amount of discount allowed local advertisers	38.55
Amount of commission paid local agents..	393.90
Total amount of advertising	10,068.63
Total cash receipts, all sources	9,251.50
Total amount paid Treasurer	8,857.60

Receipts and Net Expenses for the Year

Total receipts	\$ 9,251.50
Bills receivable	1,003.41
	<hr/>
	\$10,254.91

Expenses

Printing and mailing of Journal	\$13,472.34
Reprints	241.00
Chairman's salary	500.00
Chairman's expenses	120.00
Index	145.00
Addressograph	14.58
	<hr/>
	\$14,492.92

Issue	Pages of Ads	Pages of Orig. Articles	Pages of Collat. Reading	No. of Orig. Art.	Cost
1931					
June	38	72	46	8	\$1171.54
July	38	64	23	8	944.49
Aug.	40	76	17	11	1081.94
Sept.	38	52	18	10	826.86
Oct.	40	64	16	10	976.10
Nov.	38	104	37	10	1262.81
Dec.	40	92	39	11	1216.06
1932					
Jan.	38	64	34	12	1273.81
Feb.	38	48	40	12	1170.03
Mar.	38	56	46	11	1310.37
Apr.	38	46	40	12	1140.50
May	36	32	36	7	997.83

Respectfully submitted,

Henry C. Barkhorn,
Chairman.

It was regularly moved and seconded that the report be received.

Dr. Marsh: I should like to speak on this report for a minute, if I may. I don't know whether the members all appreciate what this report means. As we know, there has been a time of depression, when business houses have been curtailing their advertising and other expenses, and it has been hard to collect money; yet, in spite of that, this year the Publication Committee has returned more money than ever before on record.

I think we should not only receive this report but we should do so with thanks to Dr. Barkhorn and his Committee, and I move that amendment.

And, with regard to the budget for next year, we must remember that, because of the new tax bill just passed by Congress, the postage will be considerably more than before, so even the same budget allowance really amounts to a reduction in the budget for printing. It will cost something like \$500 more for postage, so I think if the Committee on Finance and Budget is going to reconsider the budget, it should take that into consideration, also.

Dr. Marsh's motion, for a vote of thanks to Dr. Barkhorn and his Committee was regularly seconded, was put to a vote, and was carried.

President Hagerty: The Chairman of the Nominating Committee has received a letter which he has requested me to read:

June 13, 1932

Dr. George N. J. Sommer,
Chairman, Nominating Committee,
Medical Society of New Jersey.

Dear Dr. Sommer:

Will you be good enough to withdraw my name as a candidate for the Presidency.

My reason for taking this action is that I believe the position is so important that it should have almost all of one's time and, after careful consideration, I am forced to the conclusion that

I have neither the strength nor the time which as President I would be expected to put into it.

Please make the Committee understand that I am deeply appreciative of the honor the Society has conferred upon me and that the decision to withdraw has been reached after painful deliberation.

Very sincerely,

Paul M. Mecray.

What action do you wish to take upon this communication?

Dr. Lippincott: I move that it be received with regret.

The motion was regularly seconded, put to vote, and carried.

President Hagerty: Next, is the Report of the Committee on Honorary Membership.

Dr. William G. Schauffler: The Committee on Honorary Membership has no candidates to offer for election at this time.

President Hagerty: If there is no objection, the report will be received. Next is the Report of the Committee on Hospitals and Medical Education.

Dr. Cosgrove: That report has already been submitted to the Welfare Committee and is in its hands.

President Hagerty: That report was referred back to the Committee for clarification, Dr. Cosgrove.

Dr. Cosgrove: I have had no advice as to the objection of the Welfare Committee to the details of that report. I have been helpless in revising it because I have not been advised of the Welfare Committee's objections.

President Hagerty: If we have, as it is likely, another meeting of the House of Delegates, will it be possible to report then?

Dr. Cosgrove: If they will submit their objections, the Committee is ready to revise on short notice.

President Hagerty: The Report of the Committee on Post-Graduate Medical Education, or instruction, is next.

Dr. Cosgrove read the report, which follows:

Report of Special Committee on Post-Graduate Medical Education

To the House of Delegates of the
Medical Society of New Jersey:

Your Special Committee on Post-Graduate Medical Education has held several meetings during the year, the first one immediately following the last Annual Meeting of the Society. In order to secure an early start in shaping up the program for the year, Professor R. H. Light, of the University Extension Division of Rutgers University, was designated by that Division to be in charge of Post-Graduate Medical Courses, and Dr. Harry H. Satchwell, a member of your State Society Committee, was appointed by the University as "technical adviser" in Post-Graduate medical matters.

As a result, largely, of the efficient coöperation

between these gentlemen, plans for the Study Courses to be offered during the current fiscal year, took shape earlier than in any previous year, and this fact was largely contributory to the success of the program.

The Committee wishes to record specifically its approval of the fitness of selection of these gentlemen, and to express its appreciation of the invaluable aid which they have rendered in the development of our program.

All of the members of the State Committee co-operated helpfully, and special acknowledgment is due to the local County Committees, without whose coöperation and help the State Committee could not have accomplished its work.

By reason of the interest in and realization of the importance of this work, by the State Board of Regents last year, there was made available to the University Extension Division of Rutgers, for the prosecution of this year's work, sufficient funds to permit the University to reduce materially the fees for our Courses. As a result of this, and of interest aroused by the Study Courses provided in previous years, your Committee has the gratification of reporting, for the instruction year just closed, the most successful year's work in its history in point of enrollment, number and variety of courses provided, and generally favorable reaction as expressed in the answers to questionnaires submitted by students. As a result of this policy of fee reduction, there has been, however, a small operating deficit, which has been generously absorbed by the University.

In brief, 820 students enrolled, for 25 classes, conducted in 13 centers, by 77 different teachers, 33 of whom came from New York, 1 from Newark, 1 from Boston and 42 from Philadelphia. Detailed lists of these Courses, and of the Faculty, and a financial statement are appended hereto.

Your Committee wishes to emphasize its conviction of the great value to the members of the Society of this program of post-graduate education, and to urge its continuation. In this connection, it must be pointed out that the Legislature has not seen its way clear to provide needed funds to the University for the ensuing fiscal year, and that

the prosecution of this work will be possible only by intense interest and heartiest coöperation of our members throughout the State.

We are sincerely sorry to report the recent death of Dr. Elmer H. Funk, of Philadelphia, who has been of the utmost assistance to your Committee, through his unselfish interest and service in organization of the teaching corps from his own city, and whose professional attainments made him a man whose loss is a serious one to his community and to the medical profession. Your Chairman has taken occasion to extend appropriate expressions to Mrs. Funk, in the name of the Committee and the Society, but we would request that similar action be taken at this time by formal resolution of the Society, and that the Secretary be instructed to transmit a copy of such resolution to Mrs. Funk.

We would further request that a formal resolution of appreciation of the coöperation of Rutgers University be prepared, adopted, and a copy thereof transmitted to President Robert C. Clothier, of the University, and to the President of the State Board of Regents.

We recommend that, inasmuch as the new Constitution of the Society specifies the functions of its Committee on Hospitals and Medical Education as embracing all phases of medical education, that hereafter the conduct of the program of Post-Graduate Medical Education be vested in that Committee, and that the present Special Committee on Post-Graduate Medical Education be discharged and discontinued. Inasmuch as the Constitution specifies only 3 members on the Committee on Hospitals and Medical Education, and inasmuch as, for the proper conduct of the courses of Post-Graduate Education, men familiar with local conditions, in all parts of the State, should form the body responsible for these courses, it is further recommended that the Committee on Hospitals and Medical Education be enlarged in the discretion of the President.

Respectfully submitted,

S. A. Cosgrove,
Chairman.

13 centers
25 groups

POST GRADUATE MEDICAL PROGRAM—1931-32

Course	Center	Opening Date	Closing Date
(1) Fractures and Newer Drug Therapy	Newton	December 3	February 4
(2) Applied Neurology (Section 1)	Newark	January 19	March 8
(3) Applied Neurology (Section 2)	Newark	January 19	March 10
(4) Medicine and Newer Drug Therapy	Hackensack	January 27	March 16
(5) Fractures and Traumatic Surgery	Hackensack	January 29	March 18
(6) Gynecology	Newark	February 11	March 31
(7) Medicine	Washington	March 9	April 27
(8) Medicine	Jersey City	March 11	April 29
(9) Applied Neurology	Paterson	March 11	May 6
(10) Recent Advances in Medicine and Surgery	Somerville	March 11	April 29
(11) Medicine and Surgery	New Brunswick	March 11	May 6
(12) Pediatrics	Newark	March 15	May 3
(13) Gynecology, Obstetrics and Pediatrics	Somerville	March 15	May 3
(14) Gastro-enterology	Trenton	March 15	May 3
(15) Gynecology and Obstetrics	Passaic & Paterson	March 15	May 3
(16) Medicine	Trenton	March 17	May 5
(17) Medicine	Newark	March 18	May 6
(18) Newer Drug Therapy	Mt. Holly	March 31	May 19
(19) Obstetrics and Gynecology	Atlantic City	March 31	May 19
(20) Gynecology	Jersey City	April 5	May 24
(21) Recent Advances in Medicine and Surgery	Atlantic City	April 6	May 25
(22) Recent Advances in Medicine and Surgery	Camden	April 6	May 25
(23) Pediatrics	Trenton	April 6	May 25
(24) Fractures	Newark	April 7	May 26
(25) Medicine and Surgery	Bridgeton	April 14	June 2

POST-GRADUATE MEDICAL PROGRAM

1931-1932

Center	Initial Enrollments (\$15.00)	Duplicate Enrollments (\$10.00)	Interns (\$5.00)	Total
(1) Atlantic City (Atlantic County)				
(1) Obstetrics and Gynecology	19	1	7	27
(2) Recent Advances in Medicine and Surgery	26	6	10	42
				— 69
(2) Bridgeton (Cumberland and Salem Counties)				
(1) Medicine and Surgery	25	..	..	25
(3) Camden (Camden and Gloucester Counties)				
(1) Recent Advances in Medicine and Surgery	45	..	1	46
(4) Hackensack (Bergen County)				
(1) Medicine and Newer Drug Therapy	20	5	..	25
(2) Fractures and Traumatic Surgery	11	1	1	13
				— 38
(5) Jersey City (Hudson County)				
(1) Medicine	43	1	2	46
(2) Gynecology	27	21	2	50
				— 96
(6) Mt. Holly (Burlington County)				
(1) Newer Drug Therapy	20	1	..	21
(7) New Brunswick and Perth Amboy (Middlesex County)				
(1) Medicine and Surgery	32	..	1	33
(8) Newark (Essex County)				
(1) Gynecology	107	3	2	112
(2) Applied Neurology (Section I)	35	..	1	36
(3) Applied Neurology (Section II)	37	..	..	37
(4) Pediatrics	32	4	1	37
(5) Medicine	21	12	1	34
(6) Fractures	6	7	..	13
				— 269
(9) Newton (Sussex County)				
(1) Fractures and Newer Drug Therapy	13	..	..	13
(10) Passaic and Paterson (Passaic County)				
(1) Applied Neurology	24	14	3	41
(2) Gynecology and Obstetrics	34	2	6	42
				— 83
(11) Somerville (Somerset County)				
(1) Recent Advances in Medicine and Surgery	25	..	..	25
(2) Gynecology, Obstetrics and Pediatrics	3	12	..	15
				— 40
(12) Trenton (Mercer County)				
(1) Gastro-enterology	24	1	..	25
(2) Medicine	16	9	..	25
(3) Pediatrics	12	4	1	17
				— 67
(13) Washington (Warren County)				
(1) Medicine	13	1	1	20
Totals.....	675	105	40	820

Faculty

1931-1932

Number of doctors who lectured this year, from:

New York 33

Newark 1

Philadelphia 42

Boston 1

Total number of lecturers 77

J. Hall Allen, M.D., Demonstrator of Proctology,
Jefferson Medical College.Brooke M. Anspach, M.D., Professor of Gynecology,
Jefferson Medical College.W. Lloyd Aycock, M.D., Assistant Professor of
Preventive Medicine and Hygiene, Harvard
Medical School; Assistant Professor of Pre-
ventive Medicine and Epidemiology, Harvard
School of Public Health.W. Wayne Babcock, M.D., F.A.C.S., Professor of
Surgery, School of Medicine, Temple University.Murray H. Bass, M.D., Associate Visiting Physi-
cian, Pediatric Service, Mt. Sinai Hospital,
New York.Edward L. Bauer, M.D., Professor of Pediatrics,
Jefferson Medical College.

Herbert M. Bergamini, M.D., F.A.C.S., Assistant

- Clinical Professor in Surgery, New York Post-Graduate Medical School, Columbia University.
- P. Brooke Bland, M.D., F.R.S. (London), Professor of Obstetrics, Jefferson Medical College.
- Morris Block, M.D., Assistant in Medicine, University and Bellevue Hospital Medical College, New York.
- H. L. Bockus, M.D., F.A.C.P., Professor of Gastro-enterology, Graduate School of Medicine, University of Pennsylvania.
- Jesse G. M. Bullova, M.D., Clinical Professor of Medicine, New York University.
- M. A. Burns, M.D., Associate Professor of Nervous and Mental Diseases, Jefferson Medical College.
- William E. Caldwell, M.D., F.A.C.S., Professor of Clinical Obstetrics and Gynecology, Columbia University.
- Russell L. Cecil, M.D., Assistant Professor of Clinical Medicine, Cornell University.
- Louis H. Clerf, M.D., Professor of Bronchoscopia, Jefferson Medical College.
- Alvin Coburn, M.D., Resident Physician, Presbyterian Hospital, New York.
- Joseph E. Connery, M.D., Assistant Professor of Clinical Pathology, New York University.
- James A. Corscaden, M.D., Assistant Professor of Clinical Gynecology, Columbia University.
- J. Leslie Davis, M.D., F.A.C.S., Jefferson Hospital, Philadelphia.
- John D. Donnelly, M.D., Instructor in Pediatrics, School of Medicine, University of Pennsylvania.
- Emmett A. Dooley, M.D., Instructor in Traumatic Surgery, New York Post-Graduate Medical School, Columbia University.
- Albert A. Epstein, M.D., Visiting Physician, Beth Israel and Mt. Sinai Hospitals, New York.
- John T. Farrell, Jr., M.D., Demonstrator, Roentgenology, Jefferson Medical College.
- Arthur M. Fishberg, M.D., Assistant Visiting Physician, Beth Israel and Mt. Sinai Hospitals, New York.
- J. Irving Fort, M.D., Chief of Fracture Service, St. Michael's Hospital and Presbyterian Hospital, Newark.
- Nellis B. Foster, M.D., Associate Professor of Medicine, Cornell University.
- Elmer H. Funk, M.D. (deceased), Professor of Therapeutics, Jefferson Medical College.
- John H. Gibbon, M.D., Emeritus Professor of Surgery, Jefferson Medical College.
- John C. Gittings, M.D., Professor of Pediatrics, Graduate School of Medicine, University of Pennsylvania.
- Harry Gold, M.D., Assistant Professor of Pharmacology, Cornell University Medical College.
- David Goldblatt, M.D., Instructor in Surgery, New York Post-Graduate Medical School, Columbia University.
- William Goldring, M.D., Instructor in Medicine, New York University.
- Edwin T. Hauser, M.D., Instructor in Medicine, Cornell University.
- B. C. Hirst, M.D., Professor of Obstetrics and Gynecology, Graduate School of Medicine, University of Pennsylvania.
- Frederick C. Holden, M.D., F.A.C.S., Professor of Gynecology, New York University.
- Richard A. Kern, M.D., Assistant Professor of Medicine, School of Medicine, University of Pennsylvania.
- Robert A. Kimbrough, Jr., M.D., Associate in Gynecology and Obstetrics, School of Medicine, University of Pennsylvania.
- Edward J. Klopp, M.D., Professor of Surgery, Jefferson Medical College.
- Frank C. Knowles, M.D., Professor of Dermatology, Jefferson Medical College.
- John A. Kolmer, M.D., Professor of Pathology and Bacteriology, Graduate School of Medicine, University of Pennsylvania; Professor of Immunology and Chemotherapy, School of Medicine, Temple University.
- Raphael Kurzrok, M.D., Associate in Obstetrics and Gynecology, Columbia University.
- Willis W. Lasher, M.D., F.A.C.S., Assistant Professor of Surgery, New York Post-Graduate Medical School, Columbia University.
- Walter Estell Lee, M.D., Professor of Surgery, Graduate School of Medicine, University of Pennsylvania.
- Clifford B. Lull, M.D., Associate Professor of Obstetrics, Jefferson Medical College.
- John D. Lyttle, M.D., Assistant Clinical Professor of Pediatrics, Columbia University.
- Thomas McCrae, M.D., Professor of Medicine, Jefferson Medical College.
- Charles Mazer, M.D., Assistant Professor of Gynecology, Graduate School of Medicine, University of Pennsylvania.
- T. Grier Miller, M.D., Assistant Professor of Medicine, School of Medicine, University of Pennsylvania.
- John McK. Mitchell, M.D., Instructor in Pediatrics, School of Medicine, University of Pennsylvania.
- Thaddeus L. Montgomery, M.D., Associate in Obstetrics, Jefferson Medical College.
- Henry K. Mohler, M.D., Assistant Professor of Medicine, Jefferson Medical College.
- John J. Moorhead, M.D., F.A.C.S., Professor of Surgery, New York Post-Graduate School, Columbia University.
- A. C. Morgan, M.D., Emeritus Professor of Clinical Medicine, School of Medicine, Temple University.
- George P. Muller, M.D., Professor of Clinical Surgery, School of Medicine, University of Pennsylvania.
- William R. Nicholson, M.D., Dean and Professor of Obstetrics, Graduate School of Medicine, University of Pennsylvania.
- Eugene P. Pendergrass, M.D., Assistant Professor of Radiology, University of Pennsylvania; Assistant Professor of Radiology, Graduate School of Medicine, University of Pennsylvania.
- Edmund B. Piper, M.D., F.A.C.S., Professor of Obstetrics, School of Medicine, University of Pennsylvania.
- Elaine P. Ralli, M.D., Chief of Diabetic Clinic, New York University.
- Bret Ratner, M.D., Clinical Professor of Pediatrics, New York University.
- M. E. Rehfuess, M.D., Associate Professor of Medicine, Jefferson Medical College.
- Henry H. Ritter, M.D., F.A.C.S., Assistant Professor in Surgery, New York Post-Graduate Medical School, Columbia University.
- Milton B. Rosenbluth, M.D., Assistant Professor of Medicine, New York University.
- Lewis C. Scheffey, M.D., Associate in Gynecology, Jefferson Medical College.
- Bela Schick, M.D., Visiting Physician and Director, Pediatric Service, Mt. Sinai Hospital, New York.
- Thomas A. Shallow, M.D., Professor of Surgery, Jefferson Medical College.
- Charles Hendee Smith, M.D., Professor of Pediatrics, New York University.

Harry V. Spaulding, M.D., F.A.C.S., Assistant Visiting Surgeon, Reconstruction Hospital, New York.

E. A. Spiegel, M.D., Professor of Applied and Experimental Neurology, School of Medicine, Temple University; Docent of the University of Vienna.

William E. Studdiford, M.D., Instructor in Obstetrics and Gynecology, Columbia University.

Edward S. Thorpe, Jr., M.D., Instructor in Pediatrics, School of Medicine, University of Pennsylvania.

Walter Timme, M.D., Professor of Clinical Neurology, Columbia University.

Ralph M. Tyson, M.D., Associate in Pediatrics, Jefferson Medical College.

George A. Ulrich, M.D., Associate Professor of Obstetrics, Jefferson Medical College.

Adolph A. Walking, M.D., Associate in Surgery, Jefferson Medical College.

Benjamin P. Watson, M.D., F.R.C.S. (Edin.), F.A.C.S., Professor of Obstetrics and Gynecology, Columbia University.

George Willauer, M.D., Associate in Surgery, Jefferson Medical College.

John Wyckoff, M.D., Associate Professor of Medicine, New York University.

Financial Report

POST-GRADUATE MEDICAL EDUCATIONAL PROGRAM ACADEMIC YEAR—1931-1932

Expenses:

200 lectures @ \$50.00 each	\$10,000.00
Travel Expenses of Lecturers	1,071.47
Lantern and Rental Expenses	301.00
Printing and Mimeographing	490.41
Postage and Stationery	325.00
Telephone	295.00
Travel Expenses of University Extension Staff Chargeable to Project	1,138.81
Salaries and stenographic service of University Extension Division directly chargeable to this project	7,060.00
Proportionate share of office overhead, etc., not including administration which is carried on general budget	795.00

\$21,476.69

Income:

Twenty-five classes—

675 Initial enrollments @ \$15.00	\$10,125.00
105 Duplicate enrollments @ \$10.00	1,050.00
40 Intern enrollments @ \$ 5.00	200.00
	<u>11,375.00</u>

820 Total Enrollments

\$10,101.69

State appropriation allocated to Post-Graduate Medical Program

10,000.00

DEFICIT..... \$ 101.69

President Hagerty: The Chair would be very much pleased if some recognition were given this Committee for the splendid work they have done in the past 2 or 3 years. The report is before you for action.

Dr. Schauffler: I move that the Report of this Committee be received and that the thanks of the Society be extended to the Committee for its invaluable work during the past 3 years, and that the recommendations contained in this Report be accepted and carried out.

The motion was regularly seconded, was put to a vote, and was carried.

President Hagerty: The Chair wishes to announce it is now within a few minutes of 5 o'clock and 7 members of the Nominating Committee have not yet handed in their credentials.

Secretary Morrison: Those who have not are Atlantic, Cape May, Cumberland, Middlesex, Monmouth, Ocean, Sussex, and Warren. Monmouth and Middlesex have just been

taken care of. That still leaves 5 counties not represented.

President Hagerty: Does the House wish to take any action upon the fact that there are 5 members of the Nominating Committee whose credentials have not yet been received? Is it the pleasure of the House that these absentees, who have not sent in their credentials, be represented by appointment?

It was regularly moved and seconded that others be seated and permitted to take those places as members of the Nominating Committee. The motion was put to a vote and was carried.

President Hagerty: The Secretary informs me that I should make the announcement that the President has the power to appoint substitutes for those whose credentials for the Nominating Committee have not been received. The President will do that when the time arrives.

We will now have the Report of the Committee on Indemnity Insurance, Dr. Beling.

Dr. Beling read the following report:

Report of Committee on Medical Defense and Indemnity Insurance, for the Year Ending June 1, 1932

In 1921 the Medical Society of New Jersey entered into a contract with the U. S. Fidelity & Guaranty Co., of Baltimore, to defend and indemnify its members against malpractice claims. Since then, there has been a steady growth each year in the number of members taking advantage of this form of protection.

It is gratifying to the Committee to report that the increment of doctors taking out this insurance during the past year has been the largest in any year since the inception of the policy. The number of doctors insured up to date is 1886, which represent 67% of the total membership of 2821. We hope that those members who are still out of the fold will realize the importance of being properly protected and will avail themselves of the advantage obtainable under our comprehensive contract.

The Committee has kept in close touch with the Company and the Official Broker of the Society, Mr. William N. Heard, and has held many conferences with them.

On February 4, 1932, a special meeting was held in Newark, at which were present the President, Secretary, Councilors and other officials of the Society, and representatives of the Company. On behalf of the Company, it was pointed out that during the past 2 years the number of claims in proportion to the total membership of Medical and Dental Societies had increased, and the loss ratio had been correspondingly greater. The desire was expressed to maintain the existing premium rates. It was not the intention of the Company to advance its present schedules, unless the loss situation became more acute. The meeting was called for the purpose of discussing the subject generally, and particularly for effecting a closer coöperation between the Societies and the Company so as to bring about an improvement in the situation with which it was now being confronted. The number of claims filed within the past year has led the Company to believe that there was either something wrong with the care exercised by the professional men, or that economic conditions were forcing people to make all sorts of claims, or suits were being brought by attorneys with the hope of obtaining money by threatened litigation.

As a result of the discussion, it was arranged that the Company would forward a report of each claim, as received, to the committee and to the Judicial Councilor of the district in which the claim happened to be made, so as to keep them informed. It was also decided to urge every insured member to coöperate with the Company, to limit and minimize the number of suits, by exercising the utmost vigilance in treatment and management of all patients.

The Committee, therefore, takes this opportunity of again emphasizing the importance of: keeping careful and accurate records in every case; of exercising the utmost care in performance of surgical operations; of obtaining consultations in difficult or obscure cases, where any doubt exists as to proper procedure or method of treatment; and, of avoiding indiscreet criticisms.

During the past year there were 29 claims settled at a total cost to the Company of \$19,127.53; 47 cases were pending, against which the Company has set up reserves of \$14,500; there were 74 claims in all.

It will interest members to know the kind of

cases in which allegations of malpractice were made: Surgical operations, 18; fractures, 7; alpine lamp burns, 4; x-ray burns and treatments, 4; mistaken diagnosis, 6; improper treatment, 6; giving wrong prescription, 2; breaking of hypodermic needles in arm, 4; dissection and cremation of infant, 2; rough handling during examination and treatment, 2; and numerous other causes.

A table showing the number of insured to the total membership of the Society, by Counties, follows:

Total membership	County	Number insured	Per cent insured
120	Atlantic	73	60.8
196	Bergen	121	61.7
50	Burlington	27	54
134	Camden	73	54.4
19	Cape May	11	57.3
48	Cumberland	33	68.7
739	Essex	594	83
37	Gloucester	20	54
28	Hunterdon	12	42.3
443	Hudson	249	56.2
113	Middlesex	65	57.5
155	Mercer	112	72.2
83	Monmouth	45	54.2
83	Morris	56	67.4
23	Ocean	7	30
216	Passaic	139	64.3
14	Salem	10	71.4
46	Somerset	30	65.2
18	Sussex	8	44.4
226	Union	188	83.1
20	Warren	13	65
2811		1886	

The Committee draws attention to the fact that this special insurance contract is only issued to members of the State Society in good standing, and remains valid only so long as their memberships are not terminated. We regret to say that there are still a great many who have not availed themselves of protection against malpractice suits under the special contract issued to members of our Society. However, we are hopeful that more will join us each year until every member is insured. The Committee is greatly indebted to Mr. William N. Heard for his constant coöperation and invaluable work in bringing in so many new members during the past year. The Insurance Company has assured the Committee that there will be no increase in rates for the ensuing year. The Committee urges every insured member to aid the Society to maintain these low rates by the exercise of diligence in the care and treatment of their patients, and in the avoidance of suits in every possible way.

The Committee recommends continuance of the contract through the same agency and acknowledges with much appreciation the excellent services rendered by the Company during the past year.

Respectfully submitted,

Christopher C. Beling, Chairman
John C. McCoy
Edgar A. Ill
Erwin Reissman
Frank G. Scammell

It was regularly moved and seconded that the report be received. The motion was put to vote and was carried.

President Hagerty: The Chair has been informed that this Committee, strangely enough, for the past 2 or 3 years has been functioning without appointment. The Chair will be very much pleased to entertain a motion reappointing this Committee. (Applause and laughter.)

It was regularly moved and seconded that the Committee be reappointed, and the motion was duly carried.

President Hagerty: The next order of business is the Report of the Committee on Life, Health and Accident, and Automobile Insurance, Dr. Pinneo.

Dr. Pinneo read the following report:

Sixth Annual Report of Committee on Life,
Health and Accident and Automobile
Insurance

This report is for the year ending April 15, 1932, and covers the 2 kinds of insurance policy offered to our members; that on Health and Accident, of the Independence Indemnity Company, consolidated with the Commonwealth Casualty Company, in which name the policy was formerly issued and which still remains the Commonwealth Division of the merged companies.

Health & Accident

The improvements made last year in the contract, have given increased advantages and greater satisfaction: (1) Extension of the period of indemnity for sickness to 6 weeks, instead of 4; (2) provision for covering total disability for work, even though the policy-holder be not strictly "house-confined".

Further progress has been made this year in the company's establishing a new State Agency to cover the whole state, thereby increasing means of contact with the company by our members. This agency is E. & W. Blanksteen, 76 Montgomery Street, Jersey City, and the efficiency of this arrangement is shown in the greater activity in visiting county societies during their meetings, by request (nearly all of which they have visited), and in the increase of new policy-holders in the 5 months since their appointment, November 15, 1931, as follows:

Camden County	5
Cumberland County	2
Essex County	7
Gloucester County	2
Hudson County	5
Hunterdon County	4
Mercer County	2
Middlesex County	4
Monmouth County	1
Passaic County	2
Salem County	1
Somerset County	4
Union County	2
Warren County	1
Total	42
Number of members now insured:	
Ages—	
under 50	91
50 to 60	63
over 60	49
Total	203

Number to whom benefits were paid	26	
Amounts of those benefits:		
Ages—		
under 50	14	\$3232.13
50 to 60	8	1096.43
over 60	4	507.14
Total	26	\$4835.70

The sums of indemnities paid varied from \$25 to \$921.43, and the time from 1 to 19 weeks.

Claims pending as incomplete 6

The settlement of claims by the Company has always been fair, even liberal, and we believe all of the county societies, without exception, will attest to uniformly satisfactory service.

The work done to procure for our members, and to carry on, Group Insurance on Health and Accident, and the advantages of this particular policy, considering all its features of coverage and cost, we believe warrants the earnestness with which it is recommended and the zeal of the agents in presenting it to our members.

Automobile Insurance

Our Automobile Policies are standard policies issued at standard rates, but offered to our members at discounts which amount to 15 or 20%, plus annual dividend of about 15%. The law requires that separate companies carry the risks on Casualty and Fire & Theft, but our companies are so associated that the policies are issued under one "cover", thus facilitating our dealing with only one agency.

Number of members carrying Liability and Property Damage	276
Number carrying Fire and Theft Policies	76
The experience of the year shows premiums written	\$12,976.22
Premiums earned (for time to date)	\$6,488.11
Losses incurred	\$3,134.08
Loss ratio	48.30%

The committee's work has incurred no expense whatever to the Society, the office work being free, and even the stationery used being from the previous year.

In conclusion, we urge upon members the advantages of our Group Insurance, particularly the Health and Accident Policy which has been so patiently negotiated, carefully studied, and heartily endorsed by your Presidents and Trustees, after their investigation, for now 6 years.

Respectfully submitted,

Frank W. Pinneo, Chairman
J. Finley Bell
Austin H. Coleman
James S. Green
Frederic J. Quigley
Clarence W. Way
Irving D. Williams
Chester I. Ulmer

Ex-Officio { John F. Hagerty, President.
J. B. Morrison, Secretary
Elias J. Marsh, Treasurer

Dr. Pinneo: I might add in conclusion that life insurance was the original interest of the Committee and that group life insurance would be possible but for 2 hindrances which the law controls. The first is the lack of a common employer, and the second—as you remember, we tried 6 years ago to overcome this—is a failure to get 75% of the enrolled

membership to subscribe. If we could secure a common employer, the percentage necessary to secure the group insurance would be somewhat modified, I think.

It was regularly moved and seconded that the report be accepted.

Secretary Morrison: Dr. Pinneo should be highly commended for this work. It is done quietly, without any noise, most of you do not know anything about it, and the number insured is pitifully small in comparison with our membership. We have less than 300 carrying this, as against 1800 carrying indemnity insurance. You want to be indemnified against suit, but not against sickness. The manager of the indemnity company has made the statement that when a business man is sick, his business goes on. His returns come in from the store or other business and his income is not very seriously affected, but when a physician is ill, his income ceases, and after a couple of months it becomes a serious problem even to get bread and butter, in a great many instances. This insurance is an absolute protection against that calamity.

I carried health and accident insurance for 30 years, until I reached the age of 60. I paid \$142 a year and never made a claim against a company. I sent in my check when I was 60 years old and received the curt reply that I was no longer eligible. There are 8 or 10 men here, of my age or over, beyond the limit of insurance, and yet they are likely to be stricken any time and have their income seriously impaired; so, at least those of you who are between 50 and 60 years of age, it seems to me, should take advantage of this cheap form of insurance.

The motion to receive the report was put to a vote and was carried.

President Hagerty: The next, is the Report of the Committee on Workmen's Compensation Law, Dr. Sommer.

Dr. Haussling, a member of the Committee, read the following report:

Report of Committee on Workmen's Compensation Act and Contract Practice

The Committee on Workmen's Compensation Act and Contract Practice was appointed by President Hagerty in accordance with a resolution passed at the Annual Meeting of this Society in 1931. The committee was composed of Drs. Kraker, Londrigan, Haussling, Vanderhoff, Weigel, Merrill, and Sommer; the latter being Chairman. During the year we have had the valuable coöperation of the President Dr. Hagerty, Dr. Reik, and Dr. Morrison, who is a member of the Labor Commission's Council for codification of the liability laws. They have aided materially with their counsel, in clarifying points in the law, and in furnishing references.

After some discussion, we passed a resolution

consisting of 5 parts, which cover, we believe, the differences of opinion, of the profession, the insurance carriers and the employees. These 5 parts of the resolution would form a basis for a fair liability act:

(1) Injured employees shall have the right to choose their own private physicians but the employer shall always have the right to request consultations.

(2) No injured employee shall be removed from the care of his private physician and taken to hospitals or clinics conducted by the insurance carriers.

(3) In counties in which there is a general hospital no injured employee shall be moved out of the county for treatment, except for good and sufficient reason, and in no instance shall the injured employee be moved out of the jurisdiction of the Compensation Bureau.

(4) There shall be established by the Compensation Commission or Bureau an Advisory Medical Committee. In case of a dispute in which the physicians of the plaintiff and of the defendant cannot arrive at a satisfactory estimate of the disability, the afore-mentioned committee shall examine the injured employee, and its findings and recommendations shall be final.

(5) The present voluntary committee representing the Bureau of Labor, the employers, and the labor organizations in the adjudication of disputes arising from bills for professional services shall be made an integral part of the Compensation Law.

We then met with the Commissioner of Labor, Mr. Blunt, and discussed our proposed Liability Act. After consultation with representatives of the carriers on his board, he said that the Labor Commission was at this time endeavoring to codify the present laws and did not wish to have any further acts introduced until this work was finished. During the recent session of the Legislature, however, under the auspices of Labor, 2 Bills were introduced—covering the right of the injured employee to choose his physician or physicians, and, to lessen the stringency of the hernia law—but both failed of becoming laws, owing to the powerful interests of the employers' associations and of the carriers.

A special committee, consisting of Drs. Haussling, Kraker, and Vanderhoff, met with representatives of the casualty and surety companies regarding the subject of "case lifting". It was admitted that this was a source of contention and trouble. It was suggested that our committee meet with the Medical Directors of the companies to iron out the difficulties. We learned, however, that the Medical Directors would have no authority to assure us of a discontinuance of this practice. The proposed meeting was not held because of this and of the pending Bill regarding the free choice of physicians; which, if passed, would have settled the "case lifting" problem.

We have learned, that if we desire legislation, as indicated heretofore, it must be introduced by ourselves after consultation with representatives of the employers, the carriers, and the employees. We have their assurance that they will go along with us and that they wish to be fair.

We considered, also, the problem of Contract Practice, which seems to be of 2 sorts: municipal, county and state contract practice; and, industrial contract practice. The so-called Lodge practice under contract, we considered to be of little importance, since the amount of this work done in New Jersey is negligible.

The Committee recommends to the Society that physicians engaged for full-time work by municipalities, counties or state, and by corporations, shall not also engage in private practice.

The question of *industrial* contract practice we considered to be intimately connected with the compensation laws and that nothing could be done until those laws are adjusted to suit the profession and the carriers.

The experience gained regarding the workings of the compensation laws, and their relation to contract practice, leads us to believe that the solution rests in our hands, with recognition of the rights of the employers, carriers, and employees. Without some equitable arrangements with these parties, vitally interested, we cannot arrive at what is rightfully due to ourselves.

George N. J. Sommer, Chairman
Joseph F. Londrigan
Francis R. Haussling

It was regularly moved and seconded that the report be accepted. The motion was put to a vote and was carried.

President Hagerty: Next, is the Report of the Committee on Maternal Welfare, Dr. Bingham.

Dr. Bingham read the following report.

Report of the Committee on Maternal Welfare

Just now, when *maternal welfare* is being discussed so widely, it is only fitting that the medical profession of New Jersey should take an active part in the general program. The State Society, at its last meeting, voted to have a Maternal Welfare Committee appointed by the President for the purpose of organizing Medical Commissions for Maternal Welfare in every County Society and co-ordinating their work.

The organization should be a *Commission*, and not a *Committee*, recognizing the former as more permanent in character and to function continuously from year to year. This is now being done but the work is proceeding slowly because a number of the County Society Presidents have been slow to appoint such a commission, or they have neglected to report to our Committee that appointments have been made. However, some progress is being made, and the following counties have taken steps toward organizing: Bergen, Cape May, Essex, Gloucester, Hudson, Hunterdon, Mercer, Middlesex, Monmouth, Morris, Passaic, Sussex, and Union (a total of 13.) Essex County has had such a Commission for Maternal Welfare for 9 years; having been up to this year the only county in the state with such an organization.

All of the men appointed seem to be very much interested. Most of our work has been done with individual members from the various counties, but a meeting for all members of the county commissions is to be held at Atlantic City, during the time of the State Society Meeting, in June; probably on Wednesday, June 15, at 8.30 p. m., and that Meeting will be open to any physician interested in maternal welfare problems.

One might well inquire—"What can such an organization do?" The Medical Commission for Maternal Welfare, in any county, should *take the leadership* for the various organizations working for improvement of maternity care. These organizations should all be co-ordinated, so that there will be no conflicting agencies. It may take consid-

erable time to accomplish this, but when it is properly understood that such different organizations will still be allowed to function as they please, but that they become, in addition, associated with and, in a sense, part of a strong body, they will all agree to coöperate. As President Farrand, of Cornell, urged in a recent address: "Let us arouse from our lethargy and assume the leadership which belongs to us medical men for public health problems."

Too much must not be attempted at once. The work should fall under several heads:

(1) *Prenatal*. I know of no county in which the present pre-natal work cannot be improved. Then, why not improve it, and extend it, so that every part of the county is covered? A system of combining *visiting nurses* with *clinics* can be arranged so as to cover the rural districts as well as the towns and cities. A prenatal card, or history blank, might be distributed freely to all physicians, as an incentive to improve their work.

(2) *Educational*. The public, like the physicians, must be convinced of the value of better maternity service. Two years ago, Essex County conducted a drive for better obstetrics, which lasted 3 months. Several meetings for physicians and nurses were addressed by leading obstetricians; and 1 meeting held for lay women, was addressed by Miss Corbin, of the New York Maternity Center.

(3) *Hospital*. Work at various hospitals can be improved by a little more attention to details. An annual report of cases should be obtained from each hospital, and suggestions for the better handling of obstetric patients may be made.

(4) *Follow-up and statistics*. More accurate statistics should be kept and classified. Maternal deaths should be divided into 3 groups: purely obstetric deaths; deaths from disease; deaths from abortion. Some cases require investigation, but such work should be postponed until the Commission is well established.

A few suggestions for improving obstetric conditions are here mentioned:

(1) Impress upon students the importance of the normal conditions and teach means by which things may be kept normal.

(2) Spend less time demonstrating operative procedures, except, possibly, in a special course for advanced students.

(3) Teach the diagnosis of complications which may arise, and the importance of calling for skilled assistance when abnormalities are found.

(4) No physician should undertake a maternity case unless he is sufficiently interested and capable of giving it his best attention. Too many cases are taken merely because the doctor hates to say "No".

(5) Every community should have its up-to-date maternity hospital, and every such hospital should be directed by an obstetrician who has the oversight of all procedures, though not necessarily interfering with conduct of the case.

(6) Every community should have, or should make provision for supplying prenatal care to all applicants.

(7) Assistance should be cheerfully given by experienced obstetricians to all patients requiring advice. The early call for help, and the prompt response by an expert, will do much to improve results in maternity care.

(8) Education of the public along these lines should be provided everywhere.

It can thus be easily seen that there is plenty of work to be done and the results obtained will

fully justify the effort. Here is an opportunity for New Jersey to be one of the leaders in this drive for better obstetrics. The best way to proceed is for each county to handle the work in its own district and to report its results to a central committee. The State Committee is anxious to assist in every way possible but conditions vary in different counties and each county will have its own special problems. It is hoped that next year's report may include specific reports from each county.

A. W. Bingham, Chairman.

It was regularly moved and seconded that the report be received, and the motion was carried.

Special Report

(Received later)

At a meeting of the Maternal Welfare Commissions of the various counties of New Jersey, held on June 15, 1932, at Atlantic City, it was

Resolved that all hospitals in New Jersey accepting obstetric cases adopt measures to control the work done in obstetrics by proper supervision of the obstetric work of physicians not on the obstetric staff of some hospital approved by the American Hospital Association; and it was further

Resolved that a semi-annual meeting of the County Maternal Welfare Commissions be held and that the next meeting be called in approximately 6 months by the Chairman of the State Commission, Dr. Bingham, in a North Jersey city. It is expected that the second meeting will be during the Annual Meeting of the State Medical Society in June 1933. These meetings shall consist of: reports by chairmen of the county commissions; discussion of problems; and a scientific program. It is hoped that all members of the State Society who are interested in obstetrics, as well as members of the Maternal Welfare Commissions, may be attracted to these meetings.

Walter B. Mount, M.D.

President Hagerty: We shall now have the Report of the Committee on Child Hygiene and Health Laws, Dr. Schauffler.

Dr. Schauffler read the following report:

Report of the Public Health Committee

Your Committee, appointed in accordance with a resolution adopted at the Annual Meeting of the State Medical Society in June, 1931, begs leave to present the following report:

At the first meeting for organization, on October 5, 1931, the purpose of the Committee was defined, as follows: "To cooperate with the Public Health Section of the Continuation Committee of the New Jersey Conference on Child Health and Protection in studying public health matters in the state of New Jersey; and to cooperate with other Organizations and Departments dealing with Public Health."

In pursuance of this purpose, a communication was sent to all such Organizations and Departments and to the County Medical Societies, asking for their cooperation.

The work of the Committee was divided into the following 5 subjects:

(1) State Board of Health, particularly as to the need of full-time health officers.

(2) The relationship of physicians to child health activities in the state.

(3) The relationship of physicians to school health matters.

(4) The relationship of physicians to hospitals and hospital clinics.

(5) The relation and coordination of physicians to health and welfare organizations.

At the subsequent meetings of the Committee detailed reports on these 5 subjects were received and debated, and the following resolutions for presentation to this Society were adopted, and are herewith presented:

(1) *Resolved* that the State Medical Society urgently recommends the continuance by the Department of Health of *District Health Officers* to the full limit allowed, namely 6. (At present only 5 such officers are provided for and, by action of the Appropriation Committee of the Legislature, these will probably be dropped.)

(2) *Resolved* that:

(a) Physicians should be in attendance at every type of diagnostic or consultation station, whether it be for adults or children.

(b) Physicians should be paid for such work.

(c) Communities should be educated to an understanding that these services are not to replace the private physician and are for those only who cannot afford to pay a doctor.

(d) This program should be carried out through friendly cooperation with organizations and public health authorities by the Public Health Relations Committee of the *State and County Medical Societies*.

(3) *Resolved* that:

(a) *All School Clinics should be discouraged.* Immunization against diphtheria, vaccinations, surgical, dental and eye clinics, and others, should all be discouraged, because of the danger of abuse of such clinics, and for the more important reason that such clinics should be relegated to their proper place—the *hospital*. In rural districts, where there are no clinical facilities, the County Societies should make provision for indigent pupils as may seem most expedient.

(b) All pre-school examinations and treatment should be done by the *family physician*. Immunization against diphtheria and vaccination should be done in all children during the first year of life, since it has been shown that 3/5 of all diphtheria cases in children occur before they are 5 years old.

(4) In view of the special problem created by the increasing number of persons availing themselves of free dispensary and hospital service, who can afford to pay for medical service, and following the recommendation of the American College of Surgeons, that a definite system of determining the social status of the patient in relation to eligibility should be established, it is—

Resolved that the State Society emphasize the necessity of developing a *Social Service Department* in connection with every hospital in the state, and, furthermore, that this phase of the work be delegated to the Woman's Auxiliary to the State Society.

(5) Regarding the Relation and Coordination of Physicians to Health and Welfare Organizations, the following principles are suggested:

Principle 1. In order to establish a working relationship and coordination between physicians and health and welfare organizations, there must be created State and County Committees, or Councils, composed of the executive officials of the State and County Medical Societies and the executive officials of the health or welfare organizations, with regular meetings to accomplish such coordination.

Principle 2. All public health or welfare work of a medical nature performed by physicians, members of the State Medical Society, shall be on a

salary basis, except during a limited initial period for demonstration value of such work.

Principle 3. Public or private organizations, and physicians doing health work of any character, shall administer such work so that all persons will be assisted in obtaining health facilities in direct proportion to their financial ability to carry their own responsibilities in this respect. A classification shall be made. Suggested classification:

Class 1. Those persons financially able to carry their own responsibilities in regard to health matters.

Class 2. The under-privileged class, receiving less than the living wage and entirely unable to pay for health facilities. This class shall receive free treatment at public expense.

Class 3. Those persons who are only partly able to meet their health needs financially during severe or long continued illnesses or operations. The health needs of this class shall be adjusted by a co-operative plan conceived and directed by the State and County Medical Societies with the assistance of public and private health and welfare agencies.

Principle 4. All administration of these principles shall be with the object of preserving the private relationship between physician and patient.

Principle 5. It is now essential that State and County Medical Societies assume responsibility for the general health of the citizens of the State of New Jersey and provide means in coöperation with health and welfare agencies for the securing of health facilities by all persons regardless of their financial status. If this responsibility is not immediately assumed by the State Medical Society, political, health and welfare agencies, will assume, indeed have already partly assumed, this responsibility, which inevitably will lead to a disruption of the personal and private relationship between physician and patient which is the most desirable one for the health needs of the *patient*.

In view of the above enumerated principles, your Committee recommends the following resolutions:

(1) That State and County Committees, or Councils, be formed, composed of the executive officials of the State and County Medical Societies, together with executive officials of the Health and Welfare Organizations, for the purpose of holding regular meetings and coördinating their work.

(2) That the time has come for the State and County Medical Societies to assume leadership and responsibility for the general health of the citizens of New Jersey, and thereby to preserve the personal and private relationship between physician and patient, which is most desirable for the health needs of the *patient*.

In presenting this report, your Committee realizes that it has only made a beginning in study of the questions involved, and respectfully suggests that this study be continued.

Respectfully submitted,

W. G. Schauffler, Chairman
J. Shapiro
Stanley H. Nichols
F. C. Johnson
Julius Levy

Dr. B. S. Pollak: May I ask Dr. Schauffler to re-read that part of the report which refers to a committee of the American College of Surgeons, because we are an integral part of the American Medical Association and if a committee of that sort was appointed, the mat-

ter might be left in the confines of the American Medical Association rather than go to a special committee of the American College of Surgeons.

Dr. Schauffler (reading): "In view of the special problem created by the increasing number of persons availing themselves of free dispensary and hospital service, who can afford to pay for medical service, and following the recommendation of the American College of Surgeons—that a definite system of determining the social status of the patient in relation to eligibility should be established—be it

Resolved that the State Society emphasize the necessity of developing a Social Service Department in connection with every hospital in the state, and, furthermore, that this phase of the work be delegated to the Woman's Auxiliary to the State Society."

I don't think that interferences with the standing of the American Medical Association.

Dr. Pollak: The point is that we have a committee of that sort in the American Medical Association, as you know, and I believe that it would be well for us, a part of the American Medical Association, rather to refer such matters or such standards to the American Medical Association than to the American College of Surgeons.

Dr. Schauffler: We are not referring anything to the American College of Surgeons, but we quote the College as having already set up such a standard, and made such a suggestion, as we recommend shall be followed in our State Society.

Dr. Pollak: I still make the point that the recommendations contained in that report, or the references that are quoted, should be those of the American Medical Association rather than of the American College of Surgeons, with all due respect to the American College of Surgeons.

President Hagerty: Just a minute, please. You have heard this very excellent report. What is your pleasure?

It was regularly moved and seconded that the report be received and its recommendations adopted.

Dr. Pollak: With thanks to the Committee. Seconded.

Dr. Quigley: I would like to amend that motion, to the effect that this Committee be continued for another year. I want to suggest that it be rechristened, however, and called the Public Health Committee, rather than the Child Hygiene and Health Laws Committee. I think that is a more comprehensive title.

I would like to say, also, what I have already said to Dr. Schauffler and some of the members of the Committee, that this is one

of the best reports that it has been my pleasure to read in a long time. It is a splendid report from the standpoint of the organization of the Committee. Its work has apparently been allocated with judgment. The various sub-divisions of the Committee have worked intelligently, and their conclusions and the principles they have enunciated, are splendid, and I think the committee deserves to be complimented.

Dr. Shapiro: I have no "c" in my name, as listed on the Committee, and I might suggest to the Chairman of our Committee that under the heading of "Clinics" the word "dental" be, also, deleted. We are probably assuming, unwisely, the acts of another profession, and I think it becomes our duty to relegate that matter to the New Jersey State Dental Association rather than the Medical Society. That is only a suggestion, on my part, to our Chairman.

President Hagerty: Bearing in mind the remarks that have been made, are you ready for the question?

Secretary Morrison: What was Dr. Quigley's amendment?

Dr. Quigley: That the Committee be continued for another year, but under the title of the Public Health Committee.

The amendment was regularly seconded, put to vote and carried. The motion as amended, to receive the report and adopt its recommendations, was put to vote and carried.

President Hagerty: Thank you, Dr. Schauffler!

Next, is the Report of the Committee on School Physicians' Conference.

Dr. Schauffler: If you will pardon me, for a moment, Dr. Holmes, Chairman of that Committee, could not be here today, and I simply want to say, as a member of that Committee, that we met twice with Dr. Ireland, and went over his program very carefully. You will remember that the Committee was appointed as an Advisory Committee to Dr. Ireland. Tomorrow, at 2.30 p. m., in the Section on School Work, Dr. Ireland will give that program in full so that those who are interested can hear the whole program explained at that time.

President Hagerty: If there is no objection, the report will be received. Have you that report?

Dr. Schauffler: The report will be given tomorrow by Dr. Ireland. There is no report from this Committee except my verbal report.

President Hagerty: There are but 3 more Committees to report, and I think we had better go on and finish the work.

Next, is the Report of the Committee on Investigation of "State Medicine", but the

Chairman is not present, so we will go on to the Report of Delegates to the American Medical Association, Dr. Conaway.

Dr. Conaway read his report, as follows:

Report of Delegates to the American Medical Association

Mr. President and Members of the House of Delegates:

All of the 4 duly accredited Delegates of this Society attended the meeting of the American Medical Association at New Orleans, May 9 to 13, 1932. The meeting was not as well attended as usual, due in a great measure, I presume, to the very extensive general depression. The total registration was only about 2700. There were 158, out of the total of 173 Delegates present, and at the final session of the House of Delegates, on Thursday, there were 128 present.

The meeting places for the various Sections were conveniently situated, in relation to the principal hotels and to the Auditorium and, considering the unusually warm weather, and were quite comfortable. The time of the meetings was so arranged that 2 Sections could use the same hall; 1 in the morning and 1 in the afternoon. The excessive heat may be considered a good reason for the diminished attendance at some of the meetings.

Both the Scientific and the Commercial Exhibits were housed in the new Auditorium. The Scientific Exhibit was very extensive and most instructive, with frequent moving picture exhibits at several of the booths. There were several new features in this exhibit, among them being: a special exhibit on poliomyelitis; another on cancer, with moving pictures; and, one on physical therapy, with demonstrations of under-water treatment.

Of the 15 Sections of the Scientific Assembly, 12 sponsored Section Exhibits under the guidance of specially appointed committees, and more than 40 of the speakers on the section programs took part in these Scientific Exhibits.

In the Technical Exposition, heretofore known as the Commercial Exhibit, there were on exhibition products from more than 130 firms, and I saw no objectionable features.

Among the Social Entertainments arranged for the Delegates, there were: a Golf Tournament on Monday; an invitation to attend the Dedicatory Exercises of the new Medical Center of Louisiana State University, on Tuesday afternoon; a visit to the National Leprosarium, at Carville, Louisiana; a dinner with the Medical Veterans, with Major General Patterson as the principal Speaker; several Alumni Banquets; a trip to Vicksburg at the invitation of the Mayor of that city; and several post-session cruises, to Havana, the Canal Zone, and the West Indies. A dinner was given the Delegates by the Louisiana State Medical Society, on Monday evening. The opening General Meeting was held Tuesday evening, at the Municipal Auditorium, and the President's Reception was held at the Roosevelt Hotel on Thursday evening. Dr. Paul Wolff, of Berlin, was a guest of the Association and he gave a clinical lecture, on Drug Addiction, in Concert Hall, Municipal Auditorium, Monday afternoon.

The House of Delegates was called to order very promptly, and business was conducted expeditiously. One of our members, Dr. Hagerty, was appointed a member of the Committee on Legislation and Public Relations, of which Committee he

acted as Secretary. The matter of regulating Specialists was considered and some special method of certification, as well as some kind of control board, was suggested. This matter was referred to a committee for consideration. It was also suggested that the Journal of the American Medical Association publish these lists after approval and certification of State Board or other control organizations. The Delegates did not approve of a member of the A. M. A. holding membership in 2 separate State Societies at the same time. A resolution was offered, asking for a reduction in the subscription price of the Journal, but it was not approved. The health and general physical condition of the War Veterans, with suggestions for measures for their relief, provoked considerable discussion.

The controversial matter of Birth Control was brought before the House, by a resolution introduced by Dr. Brooks, of Michigan, who desired to have a special committee appointed to consider this matter in its various phases and report at the next regular meeting of the Association. This resolution was very promptly *not* approved.

Dr. Maier, of Pittsburgh, Chairman of a Special Committee in charge of bills to delete the 10 day limit from prescriptions prescribing alcoholic liquors, reported that its work had not been successful.

The new President, Dr. Cary, in his Inaugural Address, stressed the dual responsibility of physicians in lay health matters and their duty to patients, as well as their civic duties, and the various public health matters which should be led by physicians. He expressed entire approval of the Post-Graduate work now being conducted by the various State Societies, and he thought this work should be helped by a Committee from the American Medical Association. He considered various economic questions; and also urged that new buildings be erected for the Headquarters in Chicago.

The members of the House of Delegates, in general, take their work very seriously and, from many years of experience, have become especially well qualified for this important work.

Dr. Dean Lewis, of Baltimore, was elected President-Elect; and Dr. A. W. Booth, of Albany, was elected a Member of the Board of Trustees in place of Dr. Haeckel, of Pittsburgh; while other officers whose terms were expiring were reelected.

The city of New Orleans is very interesting and we were received most hospitably on all occasions. Only 3 cities were approved by the Board of Trustees as suitable meeting places for this Association next year—Atlantic City, Cleveland and Milwaukee—and Milwaukee was selected but Atlantic City is already on record with an invitation for 1934.

Walt P. Conaway
John F. Hagerty
E. R. Mulford
B. S. Pollak

President Hagerty: If any other Delegate had made the report, you would have learned also that Dr. Conaway won the golf prize. What is your pleasure with regard to his report?

Secretary Morrison: I move it be accepted and placed on file.

The motion was regularly seconded and adopted.

President Hagerty: There is only 1 more

report to be made, that of the State Board of Medical Examiners, Dr. Kelley.

Dr. Kelley: Due to lateness of the hour, I will simply present this report by title, as the Report of the State Board of Medical Examiners of New Jersey, presented by Dr. McGuire, for whom I am at the moment substituting.

Report of the State Board of Medical Examiners of New Jersey

Presented by James J. McGuire, M.D., Secretary

The following is a brief report of the activities of the State Board of Medical Examiners of New Jersey during the past year:

Licenses. The Board issued 259 licenses, to physicians and surgeons, of which number 91 were by examination and 168 by endorsement of licenses from other states or the diploma from the National Board of Medical Examiners; 31 licenses were issued to osteopathic physicians, 22 by examination and 9 by endorsement; 10 licenses were issued to chiropractors, under the exemptions contained in Section 11 of the Limited License Law, 7 by examination and 3 under the Spanish-American War Veterans' clause; 24 were issued to chiropodists by examination; and 17 licenses to midwives, by examination.

The Newark Maternity Hospital, from which the majority of our applicants for the midwifery examinations graduated, has closed its course which will, no doubt, reduce the number of midwifery applicants.

Since the Chiropody Act was amended, in 1930, to raise the standard, the number of candidates has increased and the Board now has 44 applicants for the June, 1932, examination.

Revocation of licenses. The licenses of 2 midwives were revoked, 1 was suspended and 1 dismissed with a reprimand. The revocation was for conviction of criminal abortion; the suspension was for failure to call a physician when abnormal symptoms developed, in the mother and infant, during the puerperium. The woman dismissed with a reprimand had also failed to call a physician when indicated.

Court decisions. Two cases lost by the Board in trial courts were reviewed by the Supreme Court and the trial court decisions were reversed. One case was that of Anna F. Citarella, who conducted a private hospital in Glen Ridge and gave electric treatments and manipulation. The second, was that of Edward Baker, charged with practicing chiropody without a license. The Board had expected, by having this case reviewed, to obtain a ruling from the Supreme Court on the question as to whether there is a definition of chiropody in the Act. However, the Supreme Court did not rule on this point but considered only the facts in the case.

The Supreme Court allowed a writ of certiorari to the defendants in 2 cases won by the Board. The Court reviewed the cases and sustained the trial courts.

In 1 case lost by the Board, the Supreme Court sustained the trial court and the Board has taken an appeal to the Court of Errors and Appeals.

Prosecutions. Numerous complaints have been received and given attention. Many cases are still under investigation and will undoubtedly be prosecuted by the Board. The following is a brief résumé of the cases that have been tried:

Court cases

Won or settled	38
Lost (3 were chiropody cases)	6
Lost by Board, appealed to Supreme Court	2
Decision reserved	3
Listed in Court and not yet tried	30
	— 79

Decisions of higher courts

Lost by Board—trial court reversed	2
Lost by Board—trial court sustained—appeal taken to Court of Errors by Board	1
Writ dismissed due to error in complaint	1
Won by Board, trial court sustained	2
Won by Board, Writ of Defendant dismissed	1
	— 7

Hearings before Board

Medical	
Notices served not yet heard	4
Midwifery	
Licenses revoked	2
Suspended	1
Dismissed with reprimand	1
	— 8
	94

CLASSIFICATION OF INVESTIGATIONS AND INSPECTIONS

Character

Druggists practicing Medicine	23
Prescribing Herbs and Drugs	29
Medical Doctors	23
Unlicensed Chiropractors	13
Chiropractors Exceeding License	8
Osteopaths Exceeding License	6
Chiropodists, unlicensed, and exceeding License	11
Masseurs and Massage Treatments	1
Electrotherapy	23
Naturopaths	6
Midwives unlicensed and exceeding license	4
Bone-setter	1
Optometrists Exceeding License	1
Miscellaneous	60
Medical—Revocation	3
Midwifery—Revocation	1
Colonic Therapy	7
Physiotherapists	1
Psychoanalysts	2
	— 223

ANALYSIS OF INSPECTIONS AND INVESTIGATIONS MADE DURING THE YEAR OF 1931

Total number of investigations and inspections made	223
Total number of visits made and treatments received in making the investigations and inspections	1344
Average number of visits per investigation..	6

It was regularly moved and seconded that the report be received, and that motion was put to vote and carried.

President Hagerty: That finishes the regular business of the House of Delegates. Does the House wish to make provision for another meeting?

Dr. Pinneo: There is one other matter,

about the convention beginning in the afternoon instead of the morning.

Secretary Morrison: I move that an extra session of the House of Delegates be held Thursday at 5 p. m.

Dr. Quigley: We have to adopt the By-Laws, and they have to lay over a day.

Secretary Morrison: By 5 o'clock the day is over.

Dr. Quigley: I am afraid you can't do that.

Dr. Waters: What would be the objection to having 2 brief sessions, 1 Thursday and 1 Friday, if necessary?

Dr. Theodore Teimer: Wouldn't it be possible to continue this session and get through with it? I believe we could be through in half an hour.

Dr. Quigley: I move that we meet at the end of the morning general session tomorrow, for a few minutes, and also on Friday.

President Hagerty: I am pretty sure the morning session will drag over.

Secretary Morrison: On amendments to the By-Laws (reading): "These By-Laws may be amended at any Annual Meeting of the Medical Society of New Jersey by a two-thirds vote of the members present, provided that at least fifty (50) members are present; and, provided further, that the amendments shall have been submitted to the Committee on Constitution and By-Laws, and shall have been twice read in open meeting and laid upon the table for one (1) day." So, this can be adopted at a meeting Thursday afternoon.

President Hagerty: If it is the pleasure of the House, we can go on with the work of the House of Delegates now.

The next order of business is "Unfinished Business". Is there any Unfinished Business necessary to be considered by the House?

Secretary Morrison: I have nothing, Mr. President.

President Hagerty: The next order of business is "New Business". Is there any New Business to be brought to the attention of the House?

Dr. Edward G. Waters (Jersey City): I wish to present, for consideration of the House of Delegates, a plan for the accrediting of specialists and the control of specialism by the State Medical Society. This matter was introduced last year and it was referred to a Committee of which Dr. Hagerty was Chairman. It has been very thoroughly studied, in all its phases and from various aspects, over the period of time which has since then elapsed.

The plan as introduced now, for your consideration, is as follows:

Plan for Accrediting and Controlling Specialists and Specialism

(This report being the same as was submitted to and approved by the Welfare Committee, was published in the Journal of July, pages 591-592, and its republication here would seem superfluous. It is, therefore, in the line of economy, suggested that members interested in the plan will use the above-mentioned reference to the July Journal.—Ed.)

Dr. Waters: The Committee arranged to have passed around this afternoon copies of the Working Plan for Control of Specialists and Specialism, which is outlined in greater detail than I gave you, for, we will say, legalistic purposes, but the context of which is similar in all respects to that which I just read. If it is the wish of the Delegates here, or of the Chair, I will read the Working Plan, in detail; but only if it is desired.

It was requested that Dr. Waters read the Working Plan, in detail, which he did, explaining at the same time, in response to a question from Dr. Schwarz, that a discrepancy in some of the copies distributed was due to an error in mimeographing.

It was regularly moved and seconded that the plan, as read by Dr. Waters, be adopted.

Dr. Quigley: Might I say a word on this? I think that anyone who has read this carefully must agree that great thought has been given to the working out of this plan and, of course, though some might think that they could improve it in this particular feature or that, it looks like a good, sound, simple, workable plan which keeps within control of the Society the regulation of specialists.

I think that a great deal of credit is due to Dr. Waters and Dr. Hagerty, who have worked on this proposal almost constantly this year. I have great pleasure in speaking in behalf of the adoption of this measure.

Dr. Orton (Newark): I should like to know what is at the real bottom of all this. It seems to me that it is putting the cart before the horse. In plan, it is very good, but I think if that plan were put into the hospitals first, it would work out better. If a man is appointed to a hospital, to do certain work, see that his qualifications are proper before he is appointed, and all his recommendations thereafter by the Medical Board. That has been worked out, I believe very satisfactorily, in one hospital I know of, the Elizabeth General Hospital, and I don't see why other hospitals could not do the same thing.

Here, too, it means another license in order to practice a certain line that you are devoted to. It means another additional \$25 to make a living, and I oppose any such change as being governed by the Medical Society, but

rather would see it in the hands of the Hospital Medical Boards.

Dr. Schauffler: Perhaps Dr. Orton doesn't realize that the Welfare Committee of the State Society has had that matter up for 3 years now, combating attempted legislation introduced by laymen, and possibly some physicians whose names are unknown, trying to force through the Legislature a law making specialists subject to another examining board, and insisting that this certification shall come from the State.

The Welfare Committee has threshed this over for several years and, in order to avoid another step into *state medicine*, in order to avoid political interference with the duties and privileges of the medical profession, this matter has been most carefully considered, and it has seemed to the Welfare Committee members that if some method could be devised by which the whole thing could be kept in the hands of the medical profession instead of getting into the Legislature and into the hands of politicians, it would save the respect for the medical profession, it would really amount to something in the way of certification, and it would be pleasing to the public at large; therefore, the Welfare Committee has thoroughly approved of a procedure of this kind and, after long deliberation and many conferences, this plan has been evolved. Our President has been working on it for 3 years, and we feel, those of us who have been working with him, and who have watched his growing enthusiasm, that this is a thing he is most anxious to have signalize his term of office, as a real boon to the profession.

Dr. A. E. Jaffin: I want to reply that it is unfortunate that more hospitals do not control their appointments and follow the example set by the Elizabeth General Hospital, but I know of no measure that would stimulate other hospitals to do that which Dr. Orton commends on the part of the Elizabeth General Hospital, and for that reason I wish to speak very strongly in favor of this resolution.

Dr. Schwarz: I had the privilege of being the first speaker in support of this at the Second Judicial Councilor Meeting over a year ago, when Dr. Waters first presented the matter. At that time, the consensus of opinion was that while this was a revolutionary step, it was one the medical profession should and must take; otherwise, we will resign our fate, as we always have, to the Legislature, to lay people who will interfere with us and put in their own pet projects.

The hospital idea can be very well extended from the State Society's Committee on Credentials, but to set up a separate board to rule

on that matter and have it referred back, would really be putting the cart before the horse.

Dr. Ephraim R. Mulford: I just want to take this opportunity, Mr. President, to congratulate you and Dr. Waters on this splendid presentation. During a recent visit to the American Medical Association I had the pleasure of having these recommendations read over by 3 members of the New York State Society delegation. In that organization they have been contemplating some such step and there has been a great deal of argument pro and con in that organization. They, too, have had presented to their Legislature, various bills—I can't quote the number of the bills that have been presented—for the regulation of specialists within their jurisdiction.

In New Jersey, in the last 3 or 4 years, at every term of the Legislature (I think I am correct in saying "every" term) there has been a bill presented for the control of specialists in the practice of medicine. I think the wording of this resolution is splendid. I think it is a masterpiece. *It keeps this control where it belongs. It keeps it in our organization. We are going to be leaders in this field.*

I don't see how anyone can take any offense at the wording of this document, and I want to second its adoption, and I want to congratulate you, Mr. President. I think it is one of the great features of your presidential year. (Applause.)

The question was called for. The motion was put to a vote and was carried with but one (1) dissenting voice.

President Hagerty: Thank you!

Secretary Morrison: Inasmuch as this motion has been carried, I would like to say that while it was under consideration by the Welfare Committee, a motion was passed that inasmuch as Dr. Hagerty had given a great deal of thought to this during the past 2 or 3 years, and would in all probability bring about its culmination here today, he should be elected as an extra member of the State Society Committee for the first year, in an *advisory* capacity, perhaps as Acting-Chairman if agreeable to that Committee.

The motion was regularly seconded.

Secretary Morrison: I will put the motion to vote, since Dr. Hagerty is too modest to do so.

Secretary Morrison put the motion to vote, and it was carried unanimously.

Secretary Morrison: Now it will be my great pleasure, when I visit the Conference of Secretaries in Chicago in November, to ask Dr. Olin West to allow New Jersey to be represented on the program, putting forth this plan of ours in New Jersey.

Dr. Mulford: I move that the House of Delegates give a standing vote of appreciation to the President and Dr. Waters.

The members arose and applauded.

President Hagerty: Is there further New Business?

Dr. A. E. Jaffin: Formerly, the New York State Medical Society had us listed in their directory, together with the physicians of Connecticut, giving all their legitimate qualifications, their hospital connections, and other information concerning the qualifications of the various members or practitioners of medicine in this state. This custom was abandoned several years ago, perhaps for economic reasons. Such recognition has constituted an important asset to many physicians and has been helpful to us in selecting suitable medical advisers for patients moving to those other states. Physicians in other states have, likewise, looked to us for similar data concerning the welfare of patients from their states coming here, and for these reasons I wish to offer the following resolution:

Whereas, a complete State Directory of all physicians would be of great value to the public and the profession, as a reliable source of information concerning the qualifications, professional status, and particular field of practice, of every physician in the state; and

Whereas, the only present available listing is that of an adjoining state, which, in so far as New Jersey is concerned, is very incomplete: be it

Resolved, that we, the Delegates of the Hudson County Medical Society, recommend that the State Medical Society publish, annually, a directory as complete as that formerly published by the Medical Society of the State of New York; and be it further

Resolved, that our State Medical Society shall provide all members in good standing with a copy of the same, annually, either gratis or at cost.

I might add, in conclusion, that, usually, these directories carry sufficient advertisements to offset the cost of publication.

I move the adoption of this resolution.

The motion was regularly seconded.

Dr. Wells P. Eagleton: The Directory of the New York State Medical Society contains a list of physicians in New Jersey and in Connecticut, in addition to its own roster. That is furnished to the members of the New York Medical Society for nothing. It seems to me that instead of our starting another directory, it would be a simpler matter to work in co-operation with the New York State Society, to furnish them the data and for us to receive a certain number of copies of the Directory. Personally, I buy it every year because it is the best directory around this region. It would not cost the New York Society very much more to issue a sufficient number of

copies to supply the New Jersey members. I offer that as a suggestion.

Dr. Jaffin: For a number of years I have written to the New York State Society concerning this exchange and have met with no results whatever. They have, apparently, adopted a policy of abandoning the former liberal listing of physicians in New Jersey and Connecticut. Recently, in the New York Medical Weekly, similar criticism has been raised, by members of the New York County Society, about this very omission, and if the New York Medical Society will list them as fully as they do members of their own Society, it would be quite satisfactory and would spare us making this venture, but they have refused to do it for so many years, that I thought it would be a good thing to bring the question before this State Medical Society.

Secretary Morrison: If my recollection is correct, about 7 or 8 years ago the New York State Medical Society approached us about sharing the cost of such a directory and this State Society took no action. It appears to me far cheaper to again open negotiations with the New York State Medical Society, asking for information as to what our share of the cost would be, to have our State listed as fully as their own. It probably would be only about $\frac{1}{4}$ what the issuing of a directory of our own would cost.

President Hagerty: Are there further remarks?

Secretary Morrison: I offer an amendment to the motion—that the Medical Society of New Jersey shall communicate with the Medical Society of New York and find out what would be the proportionate cost of including our membership in their Directory.

The motion to amend was seconded, put to vote, and carried.

The motion as amended was put to vote and carried.

Dr. Waters: Is this the termination of the Business Meeting? If so, before we close, I would like to submit another recommendation: Since the need for unbiased, competent, medical testimony in court is admitted, and since the lack of it is of distinct detriment to the people, and to our profession, and since the constitutionality of measures designed to effect the above may be questioned, I submit the following recommendation:

That, the State Medical Society, meeting in Atlantic City, June, 1932, recommends that its President appoint a committee of 5 members to consult with a similarly constituted committee to be appointed by the President of the New Jersey State Bar Association, to consider a plan for making legally possible, court-appointed, properly qualified, expert medical witnesses, in trials involving controversial medical testimony.

I might say a word in explanation. The hour is late, and I feel as you probably do about long meetings, but I do want to say that through a study, not only by ourselves in the Second Councilor District Meeting, but in communication with many others—I have communicated with the Deans of Yale and Harvard Law Schools, with Mr. Wickersham, of President Hoover's Committee on Law Enforcement—I find the opinion almost universally expressed that the present status of medical court testimony is distinctly bad and that it could stand many improvements. This matter was discussed at our Councilor District meeting and that body approved the submission of such a recommendation to this House of Delegates.

It was regularly moved and seconded that the recommendation be adopted.

Secretary Morrison: About 3 years ago the House of Delegates appointed a committee to confer and cooperate with a similar committee from the Bar Association to bring about some amelioration of this very condition, as presented by Dr. Waters. We worked together fully for about a year. The Committee from the Bar Association gave us every encouragement, but they could not secure the consent of their own members to put it over, because so many lawyers in New Jersey make a living out of the multiplicity of so-called experts. So, I think it is only a lost effort to attempt to do anything further.

Dr. Waters: I don't think it will do any harm at all to fix, again, the responsibility at the door of the New Jersey Bar Association. If we are willing to do our half of the job, of cleaning up the rotten mess that medical testimony is in today, and the other half refuses, the other half being the New Jersey State Bar Association, I think we should keep hammering at them, and keep fixing the responsibility at their door, until the public begins to appreciate the situation.

The motion was put to a vote and was carried.

Dr. Shapiro: Dr. Morrison, in his report this morning, referred to the matter of the work done by medical men for the State Board of Children's Guardians. It so happens that I have been doing that work for the past 10-11 years, and specific mention in his report was made of specifying a fee of \$1 in the office and \$1.50 outside.

Secretary Morrison: No, \$1 outside plus 50 cents a mile.

Dr. Shapiro: I think it is absolutely wrong for the State Society to go on record as accepting any recommendation of that sort. The State Board of Children's Guardians is now paying the doctors who do the work a speci-

fied fee which is satisfactory to those doctors, and I feel that a matter of that kind can be adjudicated between the State Board and the individual doctors, better than by having the State Society suggest a specified fee. You would not think of telling what a specialist should charge for an operation or what to charge for professional visits to the home. For that reason, I make a motion that the part of his report which refers to the fee schedule be deleted.

The motion was regularly seconded.

Secretary Morrison: In speaking to this motion, may I say that the fees charged by specialists and by other physicians in routine practice, concerning children, are obtained from fathers who are living and earning a salary, and that is not comparable to this situation. These children are wards of the State and the bills for their medical service are paid out of the public taxes, and the medical profession can add to its honorable and respected position with the public, by showing a spirit of charity in this institution. We should not expect payment for taking care of "wards of the State" equal to what we charge for children who have parents with an earning capacity.

The motion was put to a vote and was carried.

Dr. Pollak: May I ask the privilege of the floor, inasmuch as this is the last day? It has been my privilege to attend several meetings of the American Medical Association and to find out about the system in vogue concerning submitted reports and, based upon this experience, I want to offer a resolution that—hereafter, reference committees shall be appointed by the President, to whom all reports concerning the activities of the State Society shall be referred, and who, in turn, after considering these reports, shall at some definite time submit reports to the House of Delegates.

Under such a system, the Report of the Executive Secretary, the Secretary, or the President, referred to such committees, would come back with recommendations as to some definite, specific action concerning the things in such official reports. Under our present plan, some excellent reports, containing valuable recommendations, receive no consideration, and only hasty, if any, action.

I make such a resolution and, if necessary, will draft a formal resolution for presentation later on.

Secretary Morrison: I second the motion.

President Hagerty: Are there any remarks?

Dr. Pollak has been impressed, as I have been, with the effective way in which the business is disposed of at meetings of the American Medical Association. It is quite remark-

able. It is done clearly, effectively, and it is remarkable with what celerity the work is gotten through.

The motion was put to a vote and was carried.

President Hagerty: Is there anything else to come before the House?

It was regularly moved and seconded that the House of Delegates adjourn. The motion was put to vote and was carried.

The meeting adjourned at 6.25 p. m.

Thursday Afternoon, June 16, 1932

A meeting of the House of Delegates convened at 5.15 p. m., under President Hagerty.

President Hagerty: The House of Delegates will now come to order. I understand that Dr. Pinneo has something to bring before us.

Dr. Pinneo: In order to record what is already understood, it is moved that the Annual Meeting of next year shall hold its first session in the afternoon instead of the morning, and that the Committee on Program and Arrangements shall make that provision. It is generally understood, I think, that this contributes to a better attendance in the afternoon, and that the evening being free from other attractions enables us to finish with the Unfinished Business during the first day; and, it also has the value that members who come chiefly for the Scientific Sessions have the second and third days for that and will find it to their advantage to come on that day and contribute to the important business meetings as well as to the Scientific Sessions of the next day.

The motion was regularly seconded.

President Hagerty: Are you familiar with the motion? It is to make the opening session of the House of Delegates on the afternoon of the first day, instead of the morning, and that we shall have an evening session on the same day.

Dr. McBride: I wonder if that would interfere with the meeting of the Nominating Committee.

Secretary Morrison: The Nominating Committee will propose some other time to meet; probably, the morning of the first day will be chosen.

The motion was put to a vote and was carried.

Dr. Quigley: May I present the second reading of the By-Laws? I think that these By-Laws may be adopted on second reading, without loss of a great deal of time, if there is no objection, Mr. President, by reading the Chapter number and the Section number which it is proposed to amend, inasmuch as it fol-

lows the same course as yesterday, and we can perhaps adopt them section by section quickly.

President Hagerty: Is there any objection to the plan proposed by Dr. Quigley? Hearing none, you may proceed.

Dr. Quigley: (1) Chapter 1, Section 1, p. 12, as read.

Secretary Morrison: I move its adoption.

The motion was regularly seconded, was put to a vote, and was carried.

Dr. Quigley: (2) Chapter 1, Section 2 (b), p. 13, as read.

Secretary Morrison: I move its adoption.

The motion was regularly seconded, was put to a vote, and was carried.

Dr. Quigley: Chapter 1, Section 2 (d), p. 13.

Dr. Pollak: I move its adoption.

The motion was regularly seconded, was put to a vote, and was carried.

Dr. Quigley: Chapter III, Section 1, p. 15, as read.

Secretary Morrison: I move its adoption.

The motion was regularly seconded.

President Hagerty: If there is no objection, the Section will be adopted.

Dr. Quigley: Chapter III, Section 4, p. 16, as read.

Secretary Morrison: I move its adoption.

The motion was regularly seconded.

President Hagerty: Is there any objection? Hearing none, it is adopted.

Dr. Quigley: Chapter V, Section 1, p. 18, as read.

Dr. Pollak: I move its adoption.

The motion was regularly seconded.

President Hagerty: Hearing no objection, the Section will be adopted.

Dr. Quigley: Chapter V, Section 2 (f), p. 20, as read.

Secretary Morrison: I move its adoption.

The motion was regularly seconded.

President Hagerty: Hearing no objections, the section will be adopted.

Dr. Quigley: Chapter VI, Section 2, p. 21, as read.

Secretary Morrison: I move its adoption.

The motion was regularly seconded.

President Hagerty: Hearing no objections, the section will be adopted.

Dr. Quigley: Chapter VII, Section 6, p. 27, as read.

Secretary Morrison: I move its adoption.

The motion was regularly seconded.

President Hagerty: Hearing no objection, the section will be adopted.

Dr. Quigley: Chapter VIII, Section 10, p. 31, as read.

Dr. Pollak: I move its adoption.

The motion was regularly seconded.

President Hagerty: Hearing no objection, the section will be adopted.

Dr. Quigley: Chapter IX, Section 2 (a), top line p. 35, as read.

Dr. Pollak: I move its adoption:

The motion was regularly seconded.

President Hagerty: Hearing no objection, the section will be adopted.

Dr. Quigley: Chapter X, Section 3 (a), sixth line, p. 37, as read.

Secretary Morrison: I move its adoption.

The motion was regularly seconded.

President Hagerty: Hearing no objection, the section will be adopted.

Dr. Quigley: Chapter X, Section 3, p. 37, as read.

Dr. Schauffler: I move its adoption.

The motion was regularly seconded.

President Hagerty: Hearing no objection, the section will be adopted.

Dr. Quigley: Chapter X, Section 6, p. 38, as read.

Secretary Morrison: I move its adoption.

The motion was regularly seconded.

President Hagerty: Hearing no objection, the section will be adopted.

Dr. Quigley: Now, Mr. President, there is a slight amendment that the Committee wishes to make with respect to the Report on the Constitution. Inasmuch as the Delegates were not in accord with the recommendations 7 and 9 contained in the Report on the By-Laws, the Committee felt, in that event, that item 10, recommendation 10 rather, which we made to the Constitution, it would be advisable to strike that recommendation out and substitute the additional material that was suggested to go into Article IX.

Item 10 was (Art. IX, Sec. 2, p. 11) to amend Article IX, Section 2, by replacing the period at the end of the first sentence with a comma, and adding the following:

"except that the President-Elect shall succeed to the office of President without process of nomination and election."

We feel that had better be added to Section 4 of Chapter V of the By-Laws, by changing the period at the end of this section to a semicolon, and adding:

"except that the President-Elect shall succeed to the office of President without process of nomination and election."

I make that proposal, and move its adoption.

Secretary Morrison: I second the motion.

President Hagerty: Does the House understand the change suggested by Dr. Quigley?

Dr. McBride: I would like to have that made clear, Mr. President.

Dr. Quigley: You will remember item 10 which we reported yesterday. We suggested a change to Article IX, Section 2 of the Constitution. We suggested that—at the end of the first sentence the period be replaced with a comma and the following words be added: “except that the President-Elect shall succeed to the office of President without process of nomination and election.”

This report was received, but the Committee felt that in the event that the proposals 7 and 9 in the By-Laws were not adopted, a preferable place to include this wording, rather than put it into the Constitution, was to put it here, to add it to Section 4 of Chapter V of the By-Laws, as a more suitable place.

Dr. Eagleton: I move that the transposition be concurred in.

Dr. Quigley: I will read it in a second as it reads. Section 4 reads as follows:

“Nothing in this chapter shall be construed to prevent additional nominations being made from the floor by members of the society.”

As I explained to you in reading this yesterday, this proposal was made in the Committee conference by Dr. Lathrope, and was agreed to by the other 2 members. Now, the change that we propose is that, instead of having it in Article IX, Section 2, we add it at the end of Section 4 of the By-Laws.

Secretary Morrison: It is just a transposition, isn't it?

Dr. Quigley: That is all.

Dr. Eagleton: I move that the transposition be concurred in.

The motion was regularly seconded, was put to a vote, and was carried.

Dr. Quigley: Might I suggest that a motion be made, then, to adopt the amendments as proposed?

Secretary Morrison: I move the adoption of the amendments to the By-Laws as proposed.

Dr. Pollak: I so move.

The motion was seconded by Dr. Schaufler, was put to a vote and was carried.

Dr. Schwarz: I move we give a vote of thanks to the Committee for this excellent work.

The motion was regularly seconded, was put to a vote, and was carried.

President Hagerty: Has Dr. Eagleton any report to make?

Dr. Eagleton: No.

Secretary Morrison: Yes, the report on dues.

Dr. Eagleton: There is going to be another meeting of the House of Delegates. Is

the Chairman of the Finance and Budget Committee here? As he is not here, I would say that the Board of Trustees, this morning, concurred in the recommendation that the assessment for next year shall be \$10, and so recommends.

It was regularly moved and seconded that the recommendation of the Board of Trustees be concurred in. The motion was put to a vote and was carried.

Dr. Stahl: The only thing I raise is that according to our Constitution this should be taken up at the last session.

President Hagerty: This may be the last session, for all we know. It is being presumed to be the last, at any rate.

Dr. Stahl: I thought it was the last session of the Society.

Secretary Morrison: Of the House of Delegates.

Dr. Stahl: Hasn't it usually been the last day?

Secretary Morrison: No, the last session of the House of Delegates, whenever that is held.

Dr. Stahl: Mr. President, I should like to read from the Constitution, page 35, Section b:

“This report (of the Committee on Finance) may then be approved, amended, or rejected by the House of Delegates but final action on it shall not be taken before the last session of the meeting.”

President Hagerty: I think that refers, Dr. Stahl, and my interpretation would be, to the last meeting of the House of Delegates.

Dr. Stahl: This is just for information. I haven't any objection.

President Hagerty: The last session will be a Scientific Session. It would not be considered there, of course. That applies to the House of Delegates, I am quite sure. Is that the interpretation of the House?

Is there any further business to come before the House?

Dr. McBride: Dr. Nafey has a report to make.

Dr. Nafey: Do you want the Report of the Board of Trustees meeting of this morning?

Dr. Nafey read the Report of the Special Meeting of the Board of Trustees, as follows:

Report of Special Meeting of the Board of Trustees, June 16, 1932

A special meeting of the Board of Trustees was held June 16, 1932, at the Hotel Haddon Hall, Atlantic City. A communication was received from the Secretary of the New Jersey Pharmaceutical Association, as follows: “New Jersey Pharmaceutical Association assembled in its 62nd Annual Convention, thanks the New Jersey State Medical Society for its congratulatory message, and returns felicitations and best wishes.”

The Board adopted a resolution that a vote of thanks be sent to Dr. Martland for the very successful, educational, and highly scientific, exhibit prepared by him and his committee, which has added in no small part to the great success of this session. We feel that this exhibit has marked this meeting and is a distinctive innovation of very high order, setting a standard seldom attained by any State Medical Society.

The Board of Trustees places in nomination the following names for consideration by Governor Moore, for appointment of 1 to the State Board of Medical Examiners: (1) Dr. William Edgar Darnall, of Atlantic City; (2) Dr. Clyde M. Fish, Pleasantville; (3) Dr. Edward T. Uzzell, Atlantic City.

An invitation has been received by the Medical Society of New Jersey, extended to us by Dr. Walt Conaway, to return to Atlantic City for the Annual Convention of 1933. The Board of Trustees has accepted this invitation and has designated Atlantic City as our convention city for next year, thanking Dr. Conaway for his gracious invitation.

The Board of Trustees have taken for consideration the matter of annual per capita assessment for the members of the State Society, this matter having been referred back to the Board by the House of Delegates at their Wednesday session. The action taken on this matter by the Board of Trustees is as follows: We fully endorse the recommendation of the Committee on Finance and Budget, namely, that the annual per capita be reduced to \$10 for the year 1932-1933.

Respectfully submitted,

Herbert W. Nafey,
Secretary Board of Trustees

Secretary Morrison: I move that the report be received and approved.

The motion was regularly seconded, was put to a vote and was carried.

President Hagerty: Is there any other business to come before the House?

Dr. Quigley: I move we adjourn.

The motion was regularly seconded, was put to a vote, and was carried, and the House of Delegates adjourned at 5.30 p. m.

Thursday Afternoon, June 16, 1932

The meeting convened at 2.30 p. m., with President Hagerty in the chair.

President Hagerty: The meeting will please come to order.

The first order of business is the Report of the Nominating Committee and the Election of Officers. The Secretary will please read the Report of the Nominating Committee.

Secretary Morrison read the Report of the Nominating Committee, as follows:

June 16, 1932.

To the House of Delegates of the
Medical Society of New Jersey:

The Nominating Committee met at 5 p. m. yesterday, under the Chairmanship of Dr. George N. J. Sommer. The Chairman read a letter from Dr. Paul M. Mecray, withdrawing his name as a candidate for the presidency.

Dr. Alexander, from Hudson County, read a letter from Dr. Frederic J. Quigley, who graciously gave way to the presidency and heartily endorsed the suggestion that Dr. A. Haines Lippincott, of Camden, should be elected President, in place of Dr. Mecray who, as First Vice-President, had been expected to advance.

The following, is the full report of the Nominating Committee, including the "ticket" of candidates recommended and nominated for election of officers for the ensuing year:

President, A. Haines Lippincott, of Camden.

First Vice-President, Frederic J. Quigley, of Union City.

Second Vice-President, Lancelot Ely, of Somerville.

Third Vice-President, Marcus W. Newcomb, of Brown's Mills.

Treasurer, Elias J. Marsh, of Paterson.

Secretary, J. Bennett Morrison, of Newark.

Board of Trustees: H. W. Nafey, of New Brunswick; Blase Cole, of Newton; R. M. A. Davis, of Salem; James S. Green, of Elizabeth (for the Fellows).

Councilors: First District, Christopher C. Beling, Newark; Second District, Spencer T. Snedecor, Hackensack; Fourth District, James Fisher, Asbury Park (for the unexpired term of Dr. Newcomb).

Committee on Program and Arrangements: William J. Carrington.

Committee on Scientific Work: Ralph K. Hollinshead, of Westville.

Delegates to the American Medical Association: John F. Hagerty, of Newark; Walt P. Conaway, of Atlantic City.

Alternates: George H. Sexsmith and Philip Marvel.

Committee on Publication: Linn Emerson, of Orange.

Committee on Finance and Budget: William J. Sweeney, of Union City.

Committee on Honorary Membership: William G. Schaeffer, of Princeton.

The above nominees were unanimously endorsed by the Nominating Committee.

The Nominating Committee respectfully suggests that Atlantic City be chosen as the place for the Annual Meeting of 1933.

Respectfully submitted,

George N. J. Sommer, Chairman
Arcangelo Liva, Secretary

President Hagerty: Are there any nominations from the floor for the places to be filled?

You have heard the Report of the Nominating Committee. What is your pleasure?

Dr. W. Blair Stewart: If there are no other nominations from the floor, I move that the report be accepted and that a ballot be cast by the President of the Society for all the officers as named.

President Hagerty: May I suggest that the Secretary cast the ballot?

Dr. Stewart: The Secretary is up for election.

President Hagerty: That is right.

The motion was regularly seconded, was put to vote, and was carried.

President Hagerty: The President has cast

the ballot for the names proposed by the Nominating Committee and declares that those men are duly elected to the offices for which they were named.

I am sorry Dr. Lippincott is not here. I had hoped to have the pleasure of presenting him to the Society.

Dr. Lippincott entered the room later, during the Scientific Session.

President Hagerty: Dr. Lippincott having entered, I wish him to come to the platform, please.

Dr. Lippincott approached the platform amid applause.

President Hagerty: I want to present the next President of the Medical Society of New Jersey, Dr. Lippincott. (Applause.)

President-Elect Lippincott: I am overwhelmed by this honor, that you have seen fit to bestow upon me. I have never been ambitious nor have I aspired to high office. In my wildest dreams, I had never thought to attain this great honor. No one was more disappointed than I, when Dr. Mecray decided not to be advanced to this position. This has been a short-cut to the Presidency and it is due entirely to the generous and unselfish act of Dr. Quigley. (Applause.) Dr. Quigley could have saved a year in his approach to this position, and I would not have been a candidate had he wanted to take advantage of the unusual situation that had developed. I want, here, at this time, to thank him for his generous thought that the office should go to Camden County.

I thank all of you for this evidence of your

confidence in me. I consider it a great honor, and I shall do my best to perform the duties of this high office. I, also, ask your coöperation and help during my administration. I thank you! (Applause.)

President Hagerty: A request has been made for another meeting of the House of Delegates at the close of this afternoon's session. What is your pleasure? The Chair does not feel warranted in naming a time for the meeting without its coming from the House of Delegates. Will somebody make a motion to that effect?

Secretary Morrison: I move that we have a meeting of the House of Delegates at 5 o'clock this afternoon.

The motion was regularly seconded, was put to a vote, and was carried.

Friday Afternoon, June 17, 1932

The Medical Society of New Jersey convened in the Viking Room, Haddon Hall, Atlantic City, at 12.40 p. m., with President Hagerty in the chair.

President Hagerty: I will ask Dr. Lippincott to take the Chair, please.

President-Elect Lippincott took the Chair. (Applause.)

Chairman Lippincott: We shall now have the pleasure of listening to Dr. Hagerty's Presidential Address.

Dr. Hagerty read the President's Address.

The members arose and applauded.

President Hagerty: Thank you very much.

Chairman Lippincott: The Society is now adjourned until 2.30 p. m.

GENERAL SCIENTIFIC SESSION

Thursday Morning Session,

June 16, 1932

The first general session of the Scientific Program of the One Hundred and Sixty-Sixth Annual Meeting of the Medical Society of New Jersey convened in the Viking Room, Haddon Hall, Atlantic City, New Jersey, at 10.15 a. m., with President Hagerty in the chair.

President Hagerty: The meeting will please come to order.

The Chair has been informed of the death of Dr. Thomas Jefferson Smith, of Bridgeton. May I ask that the membership rise and offer a silent tribute to his memory?

The members arose and observed a moment of silence.

President Hagerty: This is the beginning

of the Scientific Program and I should like to call your attention to the Scientific Exhibit. I think our State Society has the finest Scientific Exhibit that any State Society in the Union has ever had. This is due to the wisdom of the Board of Trustees who saw fit to appropriate money enough to carry the expenses of the Exhibit, and largely to the genius of Dr. Martland who has arranged the Exhibit. He has spent an immense amount of time and effort and has had the genius for organization and the knowledge of how to arrange an exhibit of this kind.

I think the State Society owes a very great debt of gratitude to Dr. Martland for his labors in behalf of the Scientific Exhibit. I wish the members would take advantage of it. It is really a very splendid exhibit.

If you find it possible to do so, I wish you

would go in to see the commercial exhibit sometime during your stay here at the meetings.

Already we have a registration of over 600 which is a very good representation for the meeting at this time and in these times, and out of that large number a great many find their way to the commercial exhibit at some time.

The first paper of the morning is one on "Functional Indigestion", by Dr. W. Blair Stewart, of Atlantic City.

Dr. Stewart read his paper, which was discussed by Drs. Scanlan, Davidson, Jaffin, Christian, and Stewart.

President Hagerty: The next paper will be on "Management of Peptic Ulcer", by Dr. Thomas K. Lewis, of Camden.

Dr. Lewis read his paper, which was discussed by Drs. Sharp, Gray and Lewis.

President Hagerty: There has been an error made in the preparation of the program. The next article, the presentation of the sound motion picture, will not take place until the completion of the Scientific Program. We will go on with the Scientific Program. The next paper will be on "Pathogenesis and Repair of Gastric Ulcer", by Dr. Lewis Gregory Cole, of New York.

Dr. Cole read his paper, which was discussed by Drs. Stein, Gray, Sharp, and Cole.

President Hagerty: The next paper is one on "Surgical Management of Gastric and Duodenal Ulcer", by Dr. Edgar Burke, Jersey City.

Dr. Burke presented his paper.

President Hagerty: The discussion will be opened by Dr. Joseph King.

Dr. King was not present at this time.

President Hagerty: Is Dr. Frank McLoughlin here?

Discussion was opened by Dr. McLoughlin and followed by Drs. Cole and Burke.

President Hagerty: We will now have the showing of the sound motion picture "Experimental Gastro-Enterostomy", courtesy of the Petrolagar Laboratories, after which the meeting will be adjourned.

The sound motion picture was shown.

The meeting adjourned at 1.30 p. m.

Thursday Afternoon Session,

June 16, 1932

The meeting convened at 2.35 p. m., *President Hagerty* presiding.

President Hagerty: The first order of business of the afternoon is the reading of a paper on "Recent Advances in General Surgery", by Dr. George Blackburne, of Newark.

Dr. Blackburne presented his paper, which was discussed by Drs. Sommer and Blackburne.

President Hagerty: We are now to have a paper on "Diagnosis and Treatment of Thyroid Disorders", by Dr. Leslie E. Myatt, of Bridgeton.

Dr. Leslie E. Myatt (Bridgeton): I have renamed my paper "Modern Thyroid Considerations".

Dr. Myatt read his paper, which was discussed by Drs. Goldstein, Corson, Swiney, May, Stevens and Myatt.

President Hagerty: Next is the reading of a paper on "Treatment of Simple Fractures", by Dr. John S. Irvin, of Atlantic City.

Dr. Irvin read his paper.

President-Elect Lippincott took the Chair.

Chairman Lippincott: The discussion on this paper will be opened by Dr. James H. Mason, 3d, of Atlantic City.

Dr. Mason was not present at this time.

Chairman Lippincott: The paper is now open for general discussion.

Discussion followed by Drs. Fort, Silvers and Irvin.

Chairman Lippincott: The next paper is "The Treatment of Compound Fractures by the Closed Cast Method", by Dr. Irvin E. Deibert, of Camden.

Dr. Deibert presented his prepared paper.

President Hagerty resumed the Chair.

President Hagerty: The discussion of this paper will be opened by Dr. Calvin Smythe, of Philadelphia, in the absence of Dr. Damon Pfeifer.

Discussion followed by Dr. Smythe.

President Hagerty: If there is no further discussion, I will ask Dr. Deibert if he chooses to say anything further.

Dr. Deibert: No, thank you, Mr. President.

President Hagerty: That closes the Scientific Session for the afternoon.

The meeting adjourned at 5.15 p. m.

Friday Morning Session,

June 17, 1932

The meeting convened at 10.15 a. m., with *President Hagerty* presiding.

President Hagerty: The meeting will please come to order. I am sorry that there are not more at the meeting. The papers and the speakers are entitled to a better audience than we have, and I think Dr. Orton appreciates that fact.

The first paper is "Medical and Surgical Problems of the Larynx and Hypopharynx", by Dr. Henry B. Orton, of Newark.

Dr. Orton read his paper, which was discussed by Drs. Clerf and Orton.

President Hagerty: The next paper is on "Lung Complications Following Medical and Surgical Procedures in the Upper Respiratory Tract", by Dr. B. S. Pollak, of Secaucus.

Dr. B. S. Pollak (Secaucus): After having been invited to write a paper on "Tuberculosis Among School Children", I was asked to write a paper for this Section and then take part in the discussion of Dr. Murray Bass' paper, and for that reason I asked Dr. B. P. Potter, of our service, to assist me in the preparation of this paper.

Dr. Pollak read the paper, which was discussed by Dr. Jaffin.

President Hagerty: The next paper is on "Medical and Surgical Treatment of Lung Complications Following Medical and Surgical Procedures of the Upper Respiratory Tract", by Richard Dieffenbach, of Newark.

Dr. Richard Dieffenbach: I want to thank Dr. Pollak for having covered some of the medical treatment which I have in a way neglected. I am glad he brought that out.

Dr. Dieffenbach presented his paper, which was discussed by Drs. English, Clerf, Morrison, Geary, Fine, and Dieffenbach.

The meeting adjourned at 12 o'clock.

Friday Afternoon Session,

June 17, 1932

The meeting convened at 2.30 p. m., with President Hagerty presiding.

President Hagerty: I should like to call your attention to the statement on the board, a very gratifying one, that the registration is in excess of that of last year, 930 at this hour. Many thought because of the times the session would be poorly attended. It is very gratifying to us that that did not happen to be so, and we have a larger number here than were present last year. In proportion to our numbers we have a very much better attendance than the American Medical Association meeting in New Orleans. Last year at Philadelphia there were 7000 present and this year in New Orleans there were only 2700.

I should like once again to refer to the Scientific Exhibit and express my admiration of the Exhibit and appreciation for what the Chairman of the Committee, whom I asked to assume charge of the Exhibit, Dr. Harrison S. Martland, has done, and I am happy to entertain a motion from the Society as a whole—the Board of Trustees has already done so—expressing its appreciation for the time and labor, and, I may say also, the talent displayed by Dr. Martland and the Committee in arranging this Scientific Exhibit.

Dr. Schauffler: I take pleasure in moving a vote of thanks and appreciation of the Society to Dr. Martland for the Scientific Exhibit and to the exhibitors also.

The motion was regularly seconded, was put to a vote, and was carried.

President Hagerty: I should like to say a word about the small attendance here at these sessions. The attendance is, unfortunately, small, but we have been informed that there has been an average attendance of 60 at each of the Section meetings. We cannot object to that. The Sections have been established and the Sections are doubtless doing very good work and the men attending the Sections probably get more out of them, satisfying their own particular needs, than they would out of attending general sessions such as these, but the thought occurs to me that it might not be wise to form any more Sections in the Society. New Jersey is not a very large state, and the attendance is not large, so it might not be considered advisable to establish any more Sections.

The first paper of the afternoon will be one on "Simple Method of Pelvimetry by Roentgenology", by Dr. J. Harris Underwood and Dr. E. E. Downs, of Woodbury. The paper will be presented by Dr. Underwood.

Dr. Underwood presented the paper, which was discussed by Drs. Downs and Quigley.

President Hagerty: The next paper is on "Cervical Infections", by Dr. Thomas B. Lee, of Camden.

Dr. Lee presented his paper, which was discussed by Drs. Bland and Montgomery.

President Hagerty: The next paper is "Treatment of Eclampsia", by Dr. Samuel A. Cosgrove, of Jersey City.

Dr. Cosgrove presented his paper, which was discussed by Drs. Norton, Berkow, Bland and Cosgrove.

President Hagerty: The next paper is entitled "Cesarean Section A Positive Factor in Maternal Mortality", by Dr. J. Carlisle Brown, of Atlantic City.

Dr. Brown presented his prepared paper, which was discussed by Drs. Davis, MacKenzie and Waters.

President Hagerty: Dr. Lippincott, will you please come to the platform?

Doctor, the end of my term of office has arrived.

Dr. Lippincott: I am sorry.

President Hagerty: I have enjoyed the experience and am grateful to the members of this Society for the privilege of having served them. I hope you will enjoy the experience as much as I have, and I feel very certain that the affairs of the Society will be safe and sound in your hands.

President Hagerty handed the gavel to President Lippincott as the members arose and applauded.

President Lippincott: Before we adjourn, I want to say that I have a very high mark to shoot at, which our retiring President has left me. I hope to be able to get somewhere within the range of Dr. Hagerty's standard.

We have yet a sound motion picture, "Suspension of the Uterus for Retro-Displacements", courtesy of the Petrolagar Laboratories.

The sound motion picture was shown.

President Lippincott: I am sure the Society is thankful to the Petrolagar people for this demonstration.

If there is no other business to come before the Society, I declare the meeting adjourned.

Meeting adjourned at 5.20 p. m.

THE SCIENTIFIC EXHIBIT

A Special Report Prepared by

HARRISON S. MARTLAND, M.D.

Newark, N. J.

For the first time, our State Society had a Scientific Exhibit at its Annual Meeting, and from the opinions expressed there is no doubt that it was a success. It covered a wide variety of subjects arranged so that one or more of the exhibits would be of interest to those concerned with almost any branch of medicine or surgery.

Personal demonstrations were given at almost every booth. The teaching value was of enormous benefit.

Originally 1 room was allotted the committee but as only about half of the booths could be accommodated in this room, a large part of the exhibit had to be scattered around smaller adjacent rooms and in the corridors, greatly detracting from the general set-up. However, the advantage of emphasizing and demonstrating the interest in and importance of this first exhibit was quite evident.

The number and high quality of the exhibits and excellence of presentation made a demonstration probably surpassing in elegance and teaching value that of any previous exhibit seen in any State Society Convention. The profession can look with a good deal of pride to the character and quality of the work presented.

The scientific exhibit was divided into 2 sections. The first covered anatomic, surgical, pathologic, laboratory and public health exhibits, comprising 36 individual exhibits. The committee in charge was composed of Nicholas Alter, Jersey City; John F. Anderson, New Brunswick; Arturo R. Casilli, Elizabeth; Charles Englander, Newark; John W. Gray, Newark; Robert A. Kilduffe, Atlantic City; Karl Rothschild, New Brunswick; Henry Satchwell, Newark; Asher Yaguda, Newark; and Harrison S. Martland, Newark, Chairman.

The second section consisted of 9 radiologic exhibits under the auspices of the radiologists, a newly created section of the State Society. The committee in charge of this exhibit was composed of Charles Baker, Newark; William W. Maver, Jersey City; L. L. Perkel, Jersey City; Ralph

Pomeranz, Newark; E. Reissman, Newark; E. E. Downe, Woodbury; and William G. Herrman, Asbury Park, Chairman.

ANATOMIC, SURGICAL, PATHOLOGIC, LABORATORY AND PUBLIC HEALTH EXHIBITS

Space 1. Oscar V. Batson and Samuel Ballet, Graduate School of Medicine, University of Pennsylvania, Philadelphia: Anatomy of the heart.

Space 2. Harrison S. Martland, City Hospital and office of Chief Medical Examiner of Essex County, Newark: Lesions of the circulatory system. Specimens, photographs and microphotographs illustrating congenital heart disease, rheumatic heart disease, subacute bacterial endocarditis, syphilitic heart disease and arteriosclerosis.

Space 3. Asher Yaguda, Beth Israel Hospital, Newark: Pathology of coronary disease. Prepared specimens showing coronary circulation at different age periods. Gross and microscopic pathology of coronary sclerosis, coronary thrombosis and the coronaries in rheumatic fever and syphilis.

Space 4. Joseph A. Miller, Newark: Surgical anatomy of the head and neck. Collection of colored plaster casts demonstrating anatomy and surgery of various parts of head and neck.

Space 5. Wells P. Eagleton, Eye and Ear Infirmary, Newark: Suppurative diseases of the brain. Demonstration of specimens, histories and progress of the different types of meningitis and brain abscess. Vestibular reactions in relation to the different lesions.

Space 6. Karl Rothschild, St. Peter's General Hospital, New Brunswick: Medulloblastoma cerebelli. A tumor of pre-adolescence. Charts, microphotographs and drawings of cases.

Space 7. Herman Prinz and S. S. Greenbaum, Philadelphia: Oral diseases. Moulages and colored plates of various non-surgical diseases of the face, lips and mouth.

Space 8. John F. Hagerty and John W. Gray, St. Michael's Hospital, Newark: Goiter. Specimens, photographs, microphotographs and classification of various types of goiter.

Space 9. John W. Gray, Edward Fendrick and Cecil H. Gowan, Newark: Rheumatoid arthritis. Classification of arthritis and rheumatoid arthritis. Cultural studies. Roentgenograms. Demonstration of special media and bacteria.

Space 10. Henry B. Orton, Newark: Cancer of the laryngo-pharynx. Plaster casts of operations for malignancy of the larynx, pharynx and laryngo-pharynx with key pictures of casts.

Space 11. Henry B. Orton, Newark: Bronchoscopy. Foreign bodies removed from air and food passages. Indications for bronchoscopy.

Space 12. Samuel A. Goldberg and Henry B. Orton, Presbyterian Hospital, Newark: Laryngeal carcinoma. Selected groups of cases of carcinoma of larynx removed surgically. Photographs before and after operation. Specimens and photomicrographs.

Space 13. Arturo R. Casilli, Elizabeth: Lung and breast carcinomas. Primary carcinoma of the lung spreading in lung parenchyma from primary lesion in bronchus to tracheo-peribronchial glands and pleura. Anatomic basis for clinical symptoms. The gross recognition of carcinoma of the breast.

Space 14. Ralph Pomeranz, Newark: Acute silicosis. Exhibit of specimens of lungs with microphotographs. Histories of cases, roentgenographic diagnosis and results of experimental work.

Space 15. Samuel Berg, City Hospital, Newark: The lungs in tuberculosis. Specimens illustrating

the life cycle of pulmonary tuberculosis. Methods of distribution. Reinfections. Healing.

Space 16. Samuel A. Goldberg, Presbyterian Hospital, Newark; Gastro-intestinal neoplasms. Selected cases of gastro-intestinal neoplasms, including 3 cases of carcinoma of the duodenum and 1 of myosarcoma of jejunum. Specimens, photographs and microphotographs.

Space 17. P. Brooke Bland, T. L. Montgomery, L. Goldstein and William W. Bolton, Jefferson Medical College, Philadelphia: Pathology of pregnancy. Mounted specimens and photomicrographs demonstrating various abnormalities and pathologic conditions occurring in pregnancy. Demonstration of pathologic lesions of placenta, uterus and fetus.

Space 18. James V. Jaso, Newark: Sex determination. Exhibit comprises charts of patients showing situation of corpus luteum of pregnancy and sex of child. Theories of determination of sex. Study of 500 births in 210 pregnant women.

Space 19. Samuel G. Berkow, Perth Amboy: Female sterility, constitutional factors. Body types in women of infertile constitution. Graphs showing female sex hormone cycles in infertile types. Punch-card recording, electric sorting and tabulating of anthropometric data for body types.

Space 20. Meredith F. Campbell, Montclair: Urologic surgery in infants and children. Natural size urographic photoprints, in cases of surgical disease of the urinary tract in juveniles. Clinical histories, physical examinations, operations and end-results. Surgical specimens, drawings of the surgical procedures, "before and after", photographs of urogenital tract disease and operations.

Space 21. C. R. O'Crowley and Kenneth Wheeler, City Hospital, Newark: Urologic Pathology. Exhibit of specimens, photographs and microphotographs of common and unusual lesions encountered in urology, with special reference to teratoma testes.

Space 22. Fred D. Weidman and Robert L. Gilman, Laboratory of Dermatologic Research, University of Pennsylvania, Philadelphia: Dermato-phytosis (athlete's foot). Photographs of lesions. Incidence. Fungus species, cultures in flasks and test tubes. Rare causative species. Microscopic preparations illustrating diagnostic technic and appearance of fungus in hanging drop preparations.

Space 23. Albert Strickler, The Skin and Cancer Hospital, Philadelphia: A vacuum vaporizer for treatment of ringworm, fungus infections and cutaneous pyogenic conditions. Photographs of patients before and after treatment.

Space 24. Asher Yaguda, Beth Israel Hospital, Newark: Exhibit in general pathology. Demonstration of unusual lesions encountered at autopsy.

Space 25. Milton Friedman, Beth Israel Hospital, Newark: Organization and function of a cancer service in a general hospital, as recommended by the American College of Surgeons. Graphic charts showing representation from every service in hospital, forming a consulting group which examines every patient and plans treatment. Methods of treatment with surgery and radiation. Results.

Space 26. Harrison S. Martland, City Hospital, Newark: Tumors. Specimens with microphotographs of common and unusual neoplasms. Osteogenic sarcomas in radio-active persons.

Space 27. J. Thompson Stevens, Montclair: Results of the treatment of superficial malignancies. Photographs of patients before and after treatment for malignant disease of the lips, skin, tongue, breast, genitals, etc.

Space 28. M. James Fine, City Dispensary, Newark: Treatment of pulmonary tuberculosis by artificial pneumothorax. Radiographs showing tuberculosis lesions before and after treatment.

Space 29. A. J. Casselman, Bureau of Venereal Disease Control, State Department of Health, Trenton: Diagnosis and treatment of venereal diseases. The diagnosis by dark-field examination is dependent on good technic. The Wassermann test is readily available but should be used more frequently. The drugs necessary for treatment are few, and complicated procedures are unnecessary.

Space 30. Norman J. Quinn, Health Service Department, Public Schools, Atlantic City: Health Service, Atlantic City Schools. Charts showing activities of physicians and nurses. Nutrition charts. Physical education. Corrective gymnastic charts. Photographs of medical and dental clinics.

Space 31. Margaret J. Nichols, Visiting Nurse and Tuberculosis Association, Atlantic City: Public health nursing. Exhibit depicting the curative as well as the preventive aspect of public health nursing. Beside nursing clinics, health education, family health work, maternity work and mental hygiene.

Space 32. Charles Englander, Essex County Hospital, Cedar Grove: The malarial treatment of general paresis. Specimens, photographs, charts, showing results of treatment.

Space 33. George V. O'Hanlon, Jersey City Medical Center: Model of buildings forming the Medical Center.

Space 34. Edgar Burke, Jersey City Medical Center: Charts illustrating surgical technic.

Space 35. A. V. St. George and E. Gnassi, Jersey City Medical Center: Monstrosities. Specimens illustrating rare and unusual monstrosities.

Space 36. Arthur R. Abel, Memorial Hospital, Orange: Exhibit in general pathology with particular reference to cirrhosis of the liver caused by cincofen.

SCIENTIFIC EXHIBIT OF RADIOLOGIC SECTION

(1) *Normal and Pathologic Lungs.* Charles F. Baker and W. James Marquis, Newark. In this exhibit was a comprehensive study of chest pathology, and along with it were normals for comparison. Those who failed to carefully examine these films missed an important feature of this exhibit.

(2) *Life History of Gastric Ulcer.* Lewis Gregory Cole, New York. A number of excellent films were shown illustrating the "life history of gastric ulcer". No detail was omitted in the preparation of this exhibit, which was augmented by Dr. Cole's presentation and discussions of the subject, in the General, and the Radiologic Section meetings; a very important contribution to science.

(3) *Collapse Therapy in Pulmonary Tuberculosis.* S. B. English, Glen Gardner, N. J. A number of films were shown demonstrating the advantages of artificial pneumothorax in the treatment of pulmonary tuberculosis. Dr. English's paper and discussion on this subject made the exhibit a very instructive one.

(4) *Mesenchymoma. Supernumerary Pelves and Ureters.* William Kline, New Brunswick. In this exhibit were films which were described in Dr. Kline's paper and classified under his new nomenclature as mesenchymoma. He also showed a case of supernumerary pelvis and ureters. Both exhibit and paper were instructive.

(5) *Bone Metastases. Prostate and Thyroid.* William W. Maver, Jersey City. Interesting films

of bone metastases from thyroid and prostatic tumors were shown. They illustrated Dr. Maver's paper which was read before the Radiologic Section. His cases were unusual and his paper excellent.

(6) *Acute Silicosis*. Ralph Pomeranz, Newark. Those who heard Dr. Pomeranz's paper and viewed his exhibit will realize the importance of the early recognition of silicosis and its position in industrial medicine.

(7) *Mediastinal Dermoid Cyst*. E. Reissman, Newark. The films of a patient with a dermoid cyst in the mediastinum, were shown, and the diagnosis confirmed by a specimen produced at operation. This is a very unusual case.

(8) *Bone Metastases*. E. E. Downs and W. S. Hastings, Woodbury and Philadelphia. In this exhibit were shown 20 cases of bone metastases with color photomicrographs of the primary neoplasms. These illustrate a theory as to the production of sclerosing and destructive lesions, based on the microscopic analysis of the original tumor.

Comments by President Hagerty on the Scientific Exhibit

It is a pleasure to say a word about the Scientific Exhibit at the recent meeting of our Society because of its excellence both as to quantity and quality. Exhibits like this have been a feature of meetings of the American Medical Association several years and, besides being remarkable because of their comprehensiveness and beautiful display,

have been of great value in acquainting the general practitioner with the latest developments in medical science. Many visitors to these meetings spend a large part of their time studying the scientific exhibits. Happily, the Trustees appreciated the value of such exhibits as an educational factor, and a committee composed of members from all parts of the state, with Dr. Martland as Chairman, was formed to arrange the details. To Dr. Martland, with his enthusiasm, knowledge and experience, is due, in large part, credit for our very splendid exhibit. That the idea met with general approval is evidenced by the number of requests for space by exhibitors which made the question of housing the exhibit its most serious problem.

It is to be regretted that a sufficiently large room could not have been provided where the exhibit could have been kept intact and apology must be made for discommoding one of the Sections, but it was of such general interest and so well displayed as to excite the admiration and commendation of all who saw it. At future meetings, space might be sought, apart, for the commercial exhibit and the room devoted to this purpose given to the Scientific Exhibit. Time should be stated on the program for exposition of the various displays, which will, undoubtedly, become an interesting and instructive feature of the meetings. For the unqualified success of this, the first venture, thanks are extended to the exhibitors and to the committee.

SECTION ON OPHTHALMOLOGY, OTOTOLOGY AND RHINOLARYNGOLOGY

Thursday Morning Session

June 16, 1932

The Section on Ophthalmology, Otology and Rhinology of the One Hundred and Sixty-Sixth Annual Meeting of the Medical Society of New Jersey, convened at 10 a. m. in Rooms 1335-1337, of the Hotel Hadson Hall, Atlantic City, New Jersey, Dr. H. L. Harley, of Atlantic City, Chairman of the Section, presiding.

Chairman Harley: Dr. Hagerty is anxious that we get these sessions started on time.

In opening this fifth annual section on Ophthalmology, Otology and Rhinology of the New Jersey State Medical Society, I want to thank you for the honor which you have bestowed upon me in choosing me Chairman of this Section.

There are 13 papers in all the 4 sessions which make up the Section meeting this year, and that makes the program rather crowded, the more necessary therefore that we start rather promptly. Seven of these papers relate to the nose and throat and ear, and the remaining 6, which will be read tomorrow, are mostly devoted to the eye. However, if you will notice, the second and third of tomorrow morning's session are borderline subjects.

There is a new departure on the program this year, the printing of the abstract of papers. I hope that has helped you, and we will ask for an expression of opinion later in the business meeting on this subject; certainly it has been of great help to me in arranging these papers, for what a man entitles his paper does not always tell one exactly what is in it, while an abstract does. For that reason it allowed me to arrange in some sort of sequence the papers of the session. That also determined that Dr. Mackenzie's paper should fall, and probably rightly, first in today's program. Dr. Mackenzie, our guest from Philadelphia, will read a paper on "The Management of Running Ears".

Dr. Mackenzie presented his prepared paper.

Chairman Harley: Dr. Mackenzie, I think the applause proved that the Section appreciated your very practical paper, and I hope that the men, themselves, realize that Dr. Mackenzie is a very busy man, and almost put off his trip to Europe to do this for us today.

Discussion followed by Drs. McGivern and Littwin.

Chairman Harley: Is there any other discussion on this? Surely someone else has something to say on this most interesting topic.

Dr. J. A. Fisher: Might I suggest that, per-

haps, the men want to talk on this subject, but would rather wait to hear what Dr. Atwood has to say on more or less the same subject, and then combine the discussion of the 2 papers?

Chairman Harley: I think that is a very good idea. I am not enough of an ear man to know how closely related these papers intend to be. We will continue the discussion of this paper, along with Dr. Atwood's paper, which is the second one on the program, "Chronic Suppurative Otitis Media". Dr. Atwood, of Paterson.

Dr. Atwood presented his prepared paper.

Chairman Harley: Certainly this second paper seems to be complementary to a part of Dr. Mackenzie's paper.

The discussion on this paper was opened by Dr. Hurff, of Newark.

Chairman Harley: Both papers are now open for general discussion—Dr. Mackenzie's paper and Dr. Atwood's paper.

Discussion followed by Drs. Barkhorn, Fisher, McGivern, Atwood and Mackenzie.

Chairman Harley: I am sure the Section is very grateful to Dr. Mackenzie, for he is our only guest on this topic as you notice, for his paper, and the discussion which it has elicited.

The next paper this morning is by the Chairman of the Eye, Ear, Nose and Throat Section of the Academy of Medicine of Northern New Jersey, Dr. Charles W. Buvinger, and the title of his paper is "Some Problems Arising in the Modified and Radical Mastoid Operation". There will be no slides in connection with this paper as Dr. Buvinger changed his mind about that.

Dr. Buvinger presented his prepared paper, which was discussed by Drs. Adams, Mackenzie, Peer and Buvinger.

Chairman Harley: The discussion on this paper will be opened by Dr. Adams, of Trenton.

Chairman Harley: The next paper will answer some of the questions I think that were just mentioned by Dr. Mackenzie and Dr. Buvinger in the preceding discussion, and this paper is entitled "Intracranial Complication Following Trauma to the Nasal Sinuses and Temporal Bone", by Dr. Richard D. Swain, of Newark.

Dr. Richard D. Swain delivered his paper, which was discussed by Drs. Barkhorn, Mackenzie and Swain.

Chairman Harley: That ends this morning's session. I hope you will be back promptly to start the session at 2.30 p. m. Dr. Eagleton will be the first speaker on the program this afternoon.

The meeting adjourned at 12.45 p. m.

Thursday Afternoon Session

June 16, 1932

The meeting convened at 2 p. m., with Chairman Harley presiding.

Chairman Harley: The first paper is by the sage of Lombardy Street, Dr. Wells P. Eagleton. The title is "Meningitis from the Ear and Nose". I think he needs no further introduction.

Dr. Eagleton delivered his paper.

Chairman Harley: Is Dr. Loeser in the room? Dr. Loeser who was to have opened this discussion is evidently not present. Our guest of this morning, have you any remarks to make?

Dr. Mackenzie: I would like to if Dr. Eagleton would remain, but he is not here. Would he come back? It is hardly fair, it seems to me, to discuss a man's paper if he is not here.

Search was made for Dr. Eagleton.

Chairman Harley: He cannot be found, but I believe it is all right for you to go ahead and discuss it for a copy of your discussion will be sent to him for answer before it is published.

Dr. Mackenzie discussed the paper.

Chairman Harley: Has anyone else anything to add to this discussion? If not, we will pass on to the next paper of the afternoon, "Plastic Surgery of the Nose", by Dr. Lyndon A. Peer, of Newark.

Dr. Peer presented his prepared paper, which was discussed by Drs. Barkhorn, Buvinger and Peer.

Chairman Harley: We now come to the third and last paper of the afternoon, "Diathermy in the Treatment of Chronic Deafness—A New Technic", by Dr. D. M. Yazujian, of Trenton.

Dr. Yazujian presented his prepared paper.

Chairman Harley: Discussion on this paper is not to be opened by an ear, nose and throat man, but by an electrotherapist, Dr. William Martin, of Atlantic City.

Discussion followed by Drs. Martin, Fisher, Harley and Yazujian.

Chairman Harley: I think that ends the meeting for this afternoon.

The meeting adjourned at 5.15 p. m.

Friday Morning Session

June 17, 1932

The meeting convened at 10 a. m., with Chairman Harley presiding.

Chairman Harley: I guess we had better start this session now. In 1923 this Society appointed a committee to report on the standardization of the degree of disability in industrial injuries. On that committee were Dr.

Schlichter, Chairman; Dr. Alfred Cramer, now deceased; Dr. Elias J. Marsh, of Paterson; Dr. William Goodwin, of Newark, and Dr. Olmstead, of Trenton. This committee reported in 1924, and the paper this morning by Dr. Elbert S. Sherman, of Newark, on "Industrial Eye Injuries and Compensation Claims Arising Therefrom", is a further comment on this same topic.

Dr. Sherman presented his prepared paper.

Chairman Harley: Without discredit to the other papers that are presented before this Section this year, I suspect that this paper will live longer than any of the others, and be of greater permanent value. The discussion on this paper will be opened by Dr. Wallace Pyle, and I hope you will all enter into it as you see fit.

Dr. Pyle presented his prepared discussion.

Dr. Harley then discussed the paper.

Chairman Harley: The paper is now open for general discussion.

Discussion followed by Drs. Morgan, Campbell, Sherman and Marsh.

Chairman Harley: That brings us to the next paper of the morning by Dr. James A. Fisher and Dr. R. Winfield Baesman, entitled "Retrolbulbar Neuritis from Acute Posterior Ethmoidal Infection: Cured by Operation? With Report of Two Cases".

Dr. Fisher presented the prepared paper.

Dr. Fisher: I have asked Dr. Miller to show you plaster casts of the Mosher Ethmoid Operation for exenteration.

Dr. Miller showed plaster casts of the Mosher Ethmoid Operation for exenteration.

This paper was discussed by Drs. Hubbard, Sherman and Rados.

Chairman Harley: The next paper on our program is by Dr. Willard G. Mengel, entitled "Exophthalmos; Its Relation to Neoplasm and Accessory Sinus Disease".

Dr. Mengel presented his prepared paper.

Chairman Harley: I have to make a decision over which I have no power. It is now time for us to be in the general assembly room, and we will have to continue this paper this afternoon. That is the order of the President, and I have no way of altering that decision.

The meeting adjourned at 12 o'clock.

Friday Afternoon Session

June 17, 1932

The meeting convened at 2.30 p. m., with Chairman Harley presiding.

Chairman Harley: We will continue the meeting of this morning by finishing Dr. Mengel's paper. We were not able to go on with

the discussion as we had hoped this morning because the time was up. So if Dr. Mengel will very briefly review the conclusions of his paper, we will then go on with the discussion.

Dr. Mengel then gave a résumé of his paper.

Chairman Harley: The discussion of this paper will be opened by Dr. Andrew Rados, of Newark.

Dr. Rados presented his prepared discussion.

Chairman Harley: This paper is now open for further discussion.

Discussion followed by Drs. Shipman and Pyle.

Chairman Harley: Does anyone else wish to discuss Dr. Mengel's paper? If not, Dr. Mengel, will you please close?

Dr. Mengel: I have nothing further to add, except that I certainly thank these men who took part in the discussion. I enjoyed it a whole lot.

Friday Afternoon Session

June 17, 1932

Chairman Harley: It is now necessary for us to have a very short business meeting, but we will not bore you very long.

The rules and by-laws of the State Medical Society provide that we must hold an election for the officers for the ensuing year at this time.

Before we go into that, I would like to read into the minutes something that was omitted from the Journal by some mistake last year, and that was the officers who are now holding office. That report failed to go into the Journal. I would like to read it in for historical purposes.

"The officers for this Section elected in 1931 for this year were: Chairman, H. L. Harley, 101 South Indiana Avenue, Atlantic City; Vice-Chairman, Dr. James A. Fisher, New Jersey Central Building, Asbury Park; and Secretary, Dr. B. E. Failing, 31 Lincoln Park, Newark.

Now as to the election of officers, I took it upon myself to ask the 2 previous Chairmen of this Section to act as a Nominating Committee. Dr. Linn Emerson was called away on other business in northern New York, and he consulted with Dr. Sherman before Dr. Sherman came here.

Have you a report to give me, Dr. Sherman?

Dr. Elbert S. Sherman: On behalf of the Nominating Committee, I wish to present the following names: Chairman, Charles H. Schlichter; Vice-Chairman, Samuel Hubbard;

Secretary, the renomination of our present genial and affable Secretary, Dr. Failing.

Chairman Harley: For Chairman for next year, Dr. Charles H. Schlichter has been proposed by the Nominating Committee. Are there any other nominations?

Dr. Morgan: I move they be closed.

The motion was seconded, put to a vote and was carried.

Chairman Harley: For Vice-Chairman for next year Dr. Samuel Hubbard has been proposed by the Nominating Committee. Are there any other nominations?

Dr. Marsh: I move the nominations be closed.

The motion was seconded, put to a vote and was carried.

Chairman Harley: Dr. B. E. Failing, my very efficient Secretary, has been renominated by the Nominating Committee for Secretary.

Dr. Hubbard: I move the nominations be closed.

The motion was seconded, put to a vote and was carried.

Chairman Harley: Since there is no opposition, I declare the men elected to their respective offices.

The first paper of the afternoon then, is "The Pathology of the Living Human Eye and Its Clinical Recording by Color Photography", by Dr. Laurance D. Redway, of Ossining, New York.

Dr. Redway delivered his paper.

Chairman Harley: There is a man in the room who went to the trouble of coming from Philadelphia to see Dr. Redway's show. Dr. McAndrews, will you tell the folks something about your troubles with this stuff?

Dr. McAndrews is an assistant to Dr. Shannon, Professor of Ophthalmology at Jefferson.

Dr. McAndrews then discussed this paper.

Chairman Harley: I know that there is not a great deal of discussion to be had on a paper like this. Are there any further remarks; Dr. Kilduffe, what have you to say? Dr. Kilduffe is connected with the Atlantic City Hospital Laboratories.

Discussion followed by Dr. Kilduffe.

Dr. Sherman: I move that a vote of thanks be given to Dr. Redway for the time he took in coming down here, and for his skill and his interest in presenting this subject.

The motion was seconded and the audience arose and applauded.

Chairman Harley: Is there any further discussion? If not, we will pass to the paper by Dr. Elias J. Marsh, of Paterson, entitled "Further Study of Posterior Lenticonus".

Dr. Marsh presented his prepared paper.

Chairman Harley: Discussion on this paper will be opened by Dr. S. Schulsinger, of Newark.

Dr. Schulsinger presented his prepared discussion.

Chairman Harley: Is there any further discussion on this subject? I am free to admit that I know nothing about it except what was contained in the other paper of Dr. Marsh and this one. Is there anything further you would like to say, Dr. Marsh?

Dr. Marsh: I am very much obliged to Dr. Schulsinger for studying this paper and for the discussion he has made, but as the whole question is so speculative it is almost impossible to go into any further details than I have, and I don't wish to take the time of the Section this afternoon further.

I would be glad to talk to anybody personally, but I don't think I will say more now.

Chairman Harley: I suspect that when the new Encyclopedia on Ophthalmology is published, the section on Posterior Lenticonus will be by Dr. Marsh.

The next and last paper on our program is by Dr. J. S. Shipman, of Camden, and is entitled "Extracapsular Cataract Operation".

Dr. Shipman presented his prepared paper, which was discussed by Drs. Campbell, Rados, Mengel, McAndrews, Failing and Shipman.

Chairman Harley: That closes this Section's meetings for this year.

I wish to thank you all very much for your attendance; it has been very gratifying. It has been a pleasure to serve you, and I want to thank again Dr. Failing for his help to me, and also the Vice-Chairman, Dr. Fisher.

The meeting adjourned at 5.20 p. m.

SECTION ON PEDIATRICS

Thursday Morning

June 16, 1932

The Section on Pediatrics of the Medical Society of New Jersey convened in Room 1344, Haddon Hall, Atlantic City, on Thursday, June 16, 1932, and was called to order at 10

a. m. by the Chairman, Dr. Stanley H. Nichols, of Asbury Park, who said:

"I first want to express my thanks to all of the members of the Pediatric group of the State for their hearty response to our letter requesting papers. We have more papers than

could be put on the program and are referring those that cannot be read today to next year's program.

Our object has been to develop the program this year, in a sense, as post-graduate instruction. Some of us have felt that, except for original papers, the best things to present are careful reviews of the modern knowledge of any subject as compensating for the time which the Doctor gives to come to a medical meeting and we have tried to present this program along those lines. Twenty minutes will be allowed for the reading of a paper, ten minutes for the first discussant, and 5 minutes for each following discussant.

I am happy to announce that the first part of our program will consist of a symposium on Acute Poliomyelitis."

"What We Have Learned of the Etiology, Diagnosis and Course of Poliomyelitis from the Neurologic Viewpoint" by Dr. C. C. Beling, of Newark.

"The Diagnosis, Course and Treatment in the Acute Stage of Poliomyelitis from the Pediatric Viewpoint", by Dr. L. Charles Rosenberg, of Newark.

"Physiotherapy, the Use of Respirators and Orthopedic Treatment in Poliomyelitis", by Dr. B. F. Buzby, of Camden.

This symposium on Acute Poliomyelitis was discussed by Drs. Ellis Smith, K. Rothschild, F. W. Lathrop, C. A. Pons, and J. Lynn Mahaffey.

Chairman Nichols: Further discussion will be called for after the next paper as the next speaker has to leave to catch a train. We have no need to introduce the next speaker for he has come to us many times before and brought us valuable information.

A paper was read by Dr. Charles Gilmore Kerley, of New York City, entitled, "The Relation of Frequent Colds in Children to Diseases of the Accessory Sinuses" (Illustrated by Lantern Slides). (By Invitation.)

This paper was discussed by Drs. William J. Greenfield, Arthur Stern, C. H. Schlichter, and, in closing, by the essayist.

The Chair appointed a Nominating Committee, consisting of Drs. Hummel, Lathrop and Stewart to recommend a Chairman for the section for the ensuing year.

The Section adjourned at 1 p. m., to reconvene at 2.30 the same afternoon.

Thursday Afternoon

June 16, 1932

The Section met again at 2.35 p. m. and discussion on the symposium "Acute Poliomyelitis" was continued by Dr. William London.

A paper was read by Dr. Roger S. Dennett,

of New York City, entitled, "The Nirvanol Treatment of Chorea" (Illustrated with Moving Pictures). (By invitation.)

This paper was discussed by Drs. Ernest G. Hummel, Finkelstein, C. A. Pons, Charles Englander, and, in closing, by the essayist.

Dr. Walter B. Stewart, of Atlantic City, read a paper entitled "Jaundice in Infancy".

This paper was discussed by Drs. F. W. Lathrop, William London, A. W. Bingham, Julius Levy, and, in closing, by Dr. Stewart.

Dr. Hyman I. Goldstein, of Camden, read a paper entitled "Recent Advances in the Treatment of Some Diseases of Children".

This paper was discussed by Dr. Charles Englander.

Dr. David P. Evans, of East Orange, read a paper entitled "The Use of Sugars in Infant Feeding".

This paper was discussed by Drs. A. W. Bingham, William London, Frank Scott Gordon, Frank C. Johnson, A. W. Bingham, D. J. M. Miller, F. I. Krauss, F. W. Lathrop, and, in closing, by the essayist.

The Nominating Committee announced that by unanimous vote Dr. Frank C. Johnson, of New Brunswick, is recommended for Chairman for the ensuing year. Nominations were called for from the floor. It was regularly moved and seconded that the nominations be closed.

This motion was carried and Dr. Johnson declared duly elected as Chairman.

Adjournment at 5.05 p. m.

Friday Morning

June 17, 1932

The morning session convened at 10 a. m. and was called to order by the Chairman, Dr. Stanley H. Nichols. The Chairman announced that, on account of the President's Address, this session must close promptly at 12 o'clock, necessitating postponing 1 paper until the afternoon session, which session must begin promptly at 2 p. m.

Dr. Samuel Blaugrund, of Trenton, read a paper entitled "Allergic Diseases in Children".

This paper was discussed by Dr. Arthur Heyman.

Dr. Louis Robbin, of Newark, read a paper entitled "Cerebral Hemorrhage of the New Born".

Discussed by Drs. Victor Du Busc and Arthur Heyman.

Dr. Murray H. Bass, of New York City, read a paper entitled "The Diagnosis of Pulmonary Tuberculosis in Infants and Children" (Illustrated with Lantern Slides). (By invitation.)

Discussed by Drs. Frank J. Altschul, Mar-

cus W. Newcomb, William London, A. S. Finkelstein, L. Charles Rosenberg, and, in closing, by Dr. Bass.

Dr. Potter presented some slides for Dr. B. S. Pollak as a contribution to the above discussion.

Adjournment at 11.50 a. m.

Friday Afternoon

June 17, 1932

The session convened at 2 p. m., the Section on Pediatrics holding a joint meeting with the Section of School Physicians in Room 133. It was called to order by the Chairman, Dr. Stanley H. Nichols.

Dr. Clarence S. Janifer, of Newark, read a paper entitled "The Negro Infant Mortality Rate and What the Well Baby Clinics are Doing to Lower It".

Dr. Julius Levy, of Newark, read a paper entitled "Infant Mortality in the First Month; Its Causes".

These papers were discussed by Drs. H. S. Martland, and Julius Levy.

Dr. Saunder A. Levinsohn, of Paterson, read a paper entitled "The Child Who Will Not Eat".

Discussion by Drs. Arthur Heyman, I. Zweig, S. Emlen Stokes, F. C. Johnson, and, in closing, by the essayist.

Dr. Le Roy A. Wilkes, of New York City, read a paper entitled "Community Child Health Program and the Private Physician" (By Invitation). This paper was discussed by Drs. Louis A. Schroeder, Joseph H. Marcus, F. C. Johnson, Julius Levy, Allen G. Ireland, Ellen C. Potter, Stanley H. Nichols, Miss Evelyn Walker, and, in closing, by Dr. Wilkes.

Final adjournment at 5.35 p. m.

SECTION OF SCHOOL PHYSICIANS

Thursday Morning Session

June 16, 1932

The Section of School Physicians of the Medical Society of New Jersey, meeting in Haddon Hall, Atlantic City, New Jersey, convened at 10.40 a. m., with Dr. Allen G. Ireland, Trenton, New Jersey, Chairman, presiding.

Chairman Ireland: The problem of the common cold needs no explanation here. It is one of the greatest problems that faces a nurse, a teacher and an administrator in the school. The topic appealed to me immediately. Since Dr. Mutchler has shown a very vital interest in school health work and in all its problems I asked her if she would undertake to present the topic today. She very gladly consented. So, we are glad to have you here, Dr. Mutchler. Dr. Mutchler!

Dr. Julia C. Mutchler presented "The Problem of the Common Cold in the School".

Discussion followed by Drs. Ireland and Kahrs, Mrs. Tancyhill, Drs. Hull, Newcomb, Knight and Darlington.

Chairman Ireland: Dr. Pollak is talking this morning on "Tuberculosis Among School Children". I asked him to speak on that because of his peculiar and particular interest in the school problems and all public health problems where tuberculosis is concerned, and because he is also Chairman of a special committee of the New Jersey Tuberculosis League. Dr. Pollak.

Dr. Pollak presented "Tuberculosis in

School Children", wishing to give part credit to Dr. B. P. Potter as well.

Chairman Ireland: Dr. Pollak, my personal thanks and the thanks of this group go to you. That was a splendid dissertation. I feel regretful for the attendance and the conditions because it is very evident that you put in considerable preparation and study on this paper and it certainly deserves a hearing by a larger number. I sat here and wondered if we could not bring it about in some way, either by the publication of your paper aside from its appearance in the Journal. I may have occasion, in arranging programs and conferences of different kinds to call on you again when we are sure of having a larger group.

Dr. Pollak: I would like to give credit to Dr. Potter for preparing the slides that were to be shown with this paper.

Chairman Ireland: I shall bear in mind the work that you folks have done in preparing this paper and the slides. We will make use of them in some way sometime. I am grateful to you for the time and effort that you put into this splendid presentation. As you know, the purpose of the committee on which you and I are working is to prepare for the school physicians of the state this story that you have given today, together with steps of procedure. You have given that in your paper and I think that may well be the basis of the bulletin we propose to publish for the school physicians.

Are there any questions, or any additions, or discussions that anyone would like to bring out?

Discussion followed by Drs. Jaffin, Newcomb, Potter and Kahrs.

Dr. Newcomb: I think this paper ought to be published in our State Journal and ought to be published in your educational bulletin.

Chairman Ireland: I have made a note of that. We are going to use that in a number of ways that I know of. That is a real contribution to everyone in the state and we are very grateful to you, Doctor.

Dr. Snedecor, who will present the next paper, is one of our old-time school physicians, although he looks young. He is a very active officer in the Bergen County Medical Society, and I asked him to take this important topic of "Responsibility of the County Medical Society to the Schools and School Physicians". Dr. Snedecor.

Dr. Snedecor presented his prepared paper, which was discussed by Dr. Ireland.

Thursday Afternoon Session

June 16, 1932

The meeting convened at 3 p. m., Dr. William G. Schauffler, Princeton, New Jersey, presiding.

Chairman Schauffler: We will start this session with the school health program for the physicians, which will be given by Dr. Allen G. Ireland.

Dr. Ireland presented "A School Health Program for the Physician".

Discussion followed by Drs. Schauffler, Hull, Schapiro, Mutchler, Stone, Wilbur, Leshner, and Knight.

Chairman Schauffler: This Section is a part of the State Medical Society and Dr. Ireland's work has been revised, or if not revised he has been assisted in it by the committee appointed last year at his request from the State Medical Society. He would like now to have this Section endorse it, if they see fit, to the Medical Society as the result of the work ordered by the Medical Society.

Dr. Schapiro: I so move.

Dr. Hull: I second the motion.

Chairman Schauffler: It has been moved and seconded that the bulletin of Dr. Ireland's be approved and adopted and so recommended by the State Medical Society.

The motion was carried.

Chairman Schauffler: The Chairman of this

meeting will report to the State Society that this has been done.

The meeting adjourned at 5 p. m.

Friday Morning Session

June 17, 1932

The meeting convened at 10.45 a. m., with Dr. Ireland presiding.

Chairman Ireland: Dr. Schapiro will speak on "Keeping the School Open When Poliomyelitis Is Epidemic".

Dr. Schapiro presented his prepared paper.

Chairman Ireland: Thank you, Dr. Schapiro. We are all going to read that paper again.

Discussion followed by Drs. Quigley, Schwarz, Pagliughi, Ireland and Knight.

Chairman Ireland: Dr. Leshner is one of the very few full-time school physicians that we have in the state. I think all of her work is in the high schools, junior and in some elementary schools. Dr. Leshner has exhibited an inventiveness and an ingenuity and progressiveness in going ahead and building up a rather unique type of program. Her topic today deals with one specific part of that program—her studies of the heart of the adolescent girl in relation to physical activity. Dr. Leshner!

Dr. Leshner delivered her address.

Chairman Ireland: Dr. Leshner, you have rounded out what I think has been a splendid program for yesterday and today. If we could only bring together all of the ideas and thoughts and suggestions of yesterday's papers and those of today it would all be very much worth while.

I wish there was time for much discussion but the President's Address is scheduled for twelve o'clock, and even though he may be late I cannot afford to take that chance.

Therefore, I thank all of you for coming, and I am sorry there will not be a chance for discussion.

The meeting adjourned at 12 o'clock.

Friday Afternoon Session

June 7, 1932

The session convened at 2 p. m., with the Section on Pediatrics and the Section of School Physicians holding a joint meeting in Room 133, under the chairmanship of Dr. Stanley H. Nichols. (For program, see p. 64.)

SECTION ON RADIOLOGY

Thursday Afternoon Session

June 16, 1932

The Section on Radiology of the Medical Society of New Jersey convened in Haddon Hall, Atlantic City, N. J., at 3 p. m., with Dr. Charles F. Baker presiding.

A paper entitled "The Pathogenesis and Repair of Gastric Ulcer", by Dr. Lewis Gregory Cole, which comprised one of a group of papers constituting the Symposium on Gastric Ulcer delivered at the General Scientific Session, was further elaborated upon by Dr. Cole.

Chairman Baker: Dr. Cole asked me to make the announcement that we are waiting for a screen to come down.

Discussion followed by Drs. Ill, Baker, Herrman, Reissman and Pomeranz.

The meeting adjourned at 5.30 p. m.

Friday Morning Session

June 17, 1932

The meeting convened at 10.20 a. m., with Dr. Baker presiding.

Chairman Baker: It is getting late and I think we had better start.

The first paper is by Dr. William Klein, of New Brunswick, "Mesenchymoma".

Dr. Klein read his prepared paper, which was discussed by Drs. Rothschild and the essayist.

Chairman Baker: The next paper on the program will be "Acute Silicosis", by Dr. R. Pomeranz, of Newark.

Dr. Pomeranz presented his prepared paper which was discussed by Drs. Martland, Fine, Reissman, Herrman, Maver, Rubinow and the essayist.

Chairman Baker: The next paper on the program is "A Case of Congenital Atresia of the Esophagus with Trachea-Esophageal Fistula", by Dr. George S. Reitter, of East Orange.

Dr. Reitter presented his prepared paper which was discussed by Drs. Martland, Herrman and Pomeranz.

Chairman Baker: The next paper is a contribution of mine on "Radiographic Technic".

I have realized ever since I started this paper that it was rather superfluous and it was not necessary to tell the average roentgenologist how to take a good picture. I would rather that this paper be considered in the light of proposing a system of records so we may duplicate results, rather than a fundamental paper. The pictures were made experimentally and were not reproduced with the idea of making

a superroentgenogram in any instance, such as we see on the manufacturers' light boxes.

Dr. Baker read his prepared paper which was discussed by Drs. Herrman, Perlberg, Reitter, Reissman, and the essayist.

Chairman Baker: The next paper is by Dr. Downs on "Bone Metastasis in Breast Cancer".

Dr. E. E. Downs read his prepared paper which was discussed by Drs. May and Klein.

Chairman Baker: Dr. Maver has a paper which, unfortunately, was not on the printed program. Dr. Maver, will you read us your paper, "Carcinoma of the Thyroid, With Skeletal Metastases"?

Dr. William W. Maver read his prepared paper which was discussed by Drs. Martland, Downs, Pomeranz and Baker.

Chairman Baker: It has been a wonderful meeting here. It is a quarter past one, so we will adjourn.

The meeting adjourned at 1.15 p. m.

Friday Afternoon Session

June 17, 1932

The meeting convened at 2.40 p. m., with Dr. William G. Herrman presiding.

Chairman Herrman: It is 2.45 p. m., and the meeting was supposed to start at 2.30 p. m. I think we had better come to order and start the program of the afternoon.

The first paper will be "Radiotherapy of Thyrotoxicosis", by Dr. Ernest A. May, of Newark.

Discussed by Drs. Friedman, Stevens, Herrman and May.

Chairman Herrman: The next paper on the program is "Carcinomata of the Uterine Cervix; Management and Treatment with Radium, Roentgen Rays, and Electrothermic Surgery", by Dr. J. Thompson Stevens, of Montclair.

Dr. Stevens presented his prepared paper.

Dr. Wyatt read his prepared discussion.

Dr. William W. Maver, of Jersey City, then took the chair.

Chairman Maver: The paper is now open for general discussion.

Discussion followed by Drs. May, Downs and Stevens.

Chairman Maver: The next presentation is "Radiotherapy in the Treatment of Bone Tumors", by Dr. Milton Friedman, of Newark.

Dr. Friedman delivered his address.

Dr. Baker took the chair.

Chairman Baker: You have heard this very able presentation. Will somebody open the discussion?

Dr. Downs discussed the paper.
Chairman Baker: Is there any further discussion, Dr. Friedman?
Dr. Friedman: I have nothing to add except to thank Dr. Downs for his kind words.
Chairman Baker: A very able presentation, Doctor.

The next paper will be "Collapse Therapy in Pulmonary Tuberculosis", by Dr. Samuel B. English and Dr. Paul R. Geary.
 Dr. Geary presented the paper which was discussed by Drs. English, Potter, Pollak, Geary and Baker.
 The meeting adjourned at 6.05 p. m.

WOMAN'S AUXILIARY TO THE MEDICAL SOCIETY OF NEW JERSEY

The Fifth Annual Meeting of the Woman's Auxiliary to the Medical Society of New Jersey was held at the Hotel Haddon Hall, June 16-17, 1932, under the presidency of Mrs. H. Roy Van Ness.

Thursday, June 16, 9.30 A. M.

The President announced that the Report of the National Auxiliary, to be given by Mrs. A. Haines Lippincott, was to be postponed until luncheon on Friday, when Mrs. Lippincott would be present.

The Secretary, Mrs. William K. Campbell, read the table of contents of the minutes of the last meeting, which were too lengthy to be read in full. On motion, the minutes were approved as read.

The Treasurer, Mrs. Edward W. Clarke, read the following financial report:

Annual Report of the Treasurer

	General Fund	Annual Meeting Fund
Balance June 1, 1931	\$414.22	\$241.75
Receipts General Fund:		
Dues and arrears	\$392.50	
Bill heads	1.50	
Health Education Literature	5.00	
Membership blanks	.70	
	399.70	
	813.92	
Receipts Annual Meeting Fund		97.00
		338.75
Disbursements General Fund:		
Printing and supplies	54.85	
Wreath for Dr. Hunter	10.00	
Stenton Tea	200.00	
Postage	10.65	
Over-payment dues returned (Passaic)	0.50	
1931 A. M. A. dues and arrears	189.25	
Packets—Health Education	9.44	
Ex-Presidents' pins (5-14K)	100.00	
President's expenses	72.34	
	647.03	
Balance General Fund	\$166.89	

Disbursements Annual Meeting Fund:

Flowers for luncheon	35.50
Printing	2.75
Gift for State President	21.45
Guest luncheons and tips	21.50
	81.20

Balance Annual Meeting Fund \$257.55

Balance for General Fund	\$166.89
Balance for Annual Meeting Fund	257.55
Bank Balance	\$424.44

Respectfully submitted,
 Alfreda F. Clarke, Treasurer.

The next order of business was the report of Standing Committees, and after their reading, it was moved and seconded, and so voted, that they be adopted as a whole. The reports of the Standing Committees, to which reference was made, follow herewith, in proper order:

Report of Committee on Program and Health Education

In carrying out the work this year, as suggested by the National Auxiliary, our particular tasks have been to promote educational programs for Auxiliary meetings, to inspire Auxiliary members to assume leadership in promoting health programs in other women's organizations to which they belong, and to assist the medical profession in educating the public in regard to health subjects.

Circular letters were sent to all county Auxiliaries, outlining the work and requesting them to use the pamphlets enclosed, so far as possible, at their meetings. This equipment consisted of articles by eminent physicians, published by the American Medical Association, on the following subjects: "Common Sense in Mouth Hygiene"; "What Is Health Examination Anyway?"; "Ten Commandments of Good Posture"; "Fit for the First Day at School"; "High Cost of Personal Neglect"; and "Some High Spots in 50 Years of Medical Progress". Envelopes No. 4 and No. 5, Communicable Disease Control, were received from Mrs. George N. Hoxie, National Chairman, and distrib-

uted later in the year. Of the pamphlets, "High Spots in Medical Progress" proved the most interesting to County Auxiliaries and was used more extensively than any other.

The county organizations report interest in health education and tell of work accomplished along these lines. Some Auxiliaries have had speakers at each meeting; others, at 1 or 2. The programs have been both educational and entertaining. The Hudson County Auxiliary had a paper on "Germs", written by one of its members, and a talk on a trip to Europe by a local physician. The Mercer County Auxiliary visited State Institutions, and secured speakers from them. Monmouth had a talk by Mrs. A. Haines Lippincott on "Public Relations", and was active in making surgical dressings for hospitals. Burlington had talks by physicians on subjects vital to that particular county. Essex had radio broadcasts every week during the winter by local physicians. Union had the pleasure of having our State President, Mrs. H. Roy Van Ness, at its annual meeting; also Dr. John F. Hagerty, President of the Medical Society of New Jersey; at another meeting, Mrs. A. R. Hoover gave a talk on the "Life of a Physician's Wife in Turkey"; at the April meeting, the President, Mrs. H. D. Corbusier, spoke on the "Indians of the Southwest", and showed many fine examples of their work.

All the County Auxiliaries are interested in Parent-Teacher Associations, Young Women's Christian Associations, Young Men's Christian Associations, Rotary and Kiwanis Clubs, and Hospital Auxiliaries.

Particularly good was the work of one Auxiliary, which took up with the Welfare Federation the matter of providing for the care of small children whose mothers were in the hospital.

It is hoped that material sent out this year and not used will be worked into the program next year.

Respectfully submitted,

Mrs. Frederick A. Kinch, Chairman

Report of Committee on Hygeia

There were 91 subscriptions taken in New Jersey, in 9 counties. The number was not as large as last year.

The State Chairman received 8 replies to a questionnaire. Some counties are not enthusiastic—others think the price prohibitive.

The Chairman has many valuable suggestions for programs to pass on to her successor.

It has been suggested that the State Society have an exhibit of Hygeia at the annual meeting.

Respectfully submitted,

Viola B. Hubbard, Chairman.

Report of Committee on Legislation

There has been little legislation of interest to the medical profession during this session of the Legislature. With a Republican Senate and a Democratic Governor and Assembly, it has been difficult to get bills of any kind through. Of 358 bills introduced in the Senate, only 88 have become laws; and of 535 introduced in the Assembly, only 82 have become laws. The Legislature is still in session, however, so a final report cannot be made at this time.

So far, there have been 9 bills introduced which affect the medical profession. Of these, the following 4 have become laws: Senate Bill 7, which

permits cities having no municipally-maintained hospitals to pay 1 mill on every dollar of assessable property, instead of 2/3 mill, for indigent patients; Senate Bills 43 and 45, designed to protect the public from undesirable optometrists, regulating admission to practice and providing for reporting of those convicted of crime; and Assembly Bill 175, providing for distribution of information concerning tuberculosis to incorporated health societies engaged in relief and prevention of tuberculosis.

Of the 5 still in committee: Assembly Bill 44 provides more thorough chest examination for school children; Assembly 257 creates a new State Department of Health and merges in it the State Board of Health; Assembly 334 grants preferential treatment to certain World War Veterans desiring chiropractic licenses; and a bill introduced in both Houses, Senate 204 and Assembly 490, gives physicians a lien on damages awarded injured persons.

Assembly 257 and Assembly 334 would seem to be most undesirable, from our point of view; the other 3, though good, will probably die in committee.

The various cults and quacks have not been so active during this session, and no attempt has been made to force laws through to promote their interests. On the whole, we may be thankful that, though little has been done to help the medical profession, nothing has been done to harm it.

Respectfully submitted.

Ann R. Newcomb, Chairman

Report of the Committee on Entertainment

Dr. Olmstead had charge of the Dinner Dance, and the Woman's Auxiliary to the Atlantic County Medical Society had charge of the Card Party.

The luncheon was held in the Rutland Room at Haddon Hall, in honor of our President, Mrs. H. Roy Van Ness. We had an attendance of nearly 100 members.

Pins were presented by Mrs. A. J. Casselman to the President and all Ex-Presidents of the State Auxiliary.

The following people served on the various committees: Mrs. Salasin, Ticket Chairman; Mrs. Robert A. Bradley, Decoration Committee; Mrs. Maurice Chesler, Registration Committee.

Respectfully submitted,

Lillian M. Saunders (Mrs. O. W.).

Chairman

Report of the Corresponding Secretary

The tasks of the office of Corresponding Secretary are embraced in the following statement of communications issued:

Individual letters (approximately)	40
12 Communications to 16 County Presidents	12
Letters to unorganized counties	5
Postal card reminders	10
Miscellaneous letters	6
State Auxiliary communications:	
4 Notices of Executive Meeting to 24 officers	96
Notices to committee chairmen	5
Constitutions sent out	6

360

Respectfully submitted,

Ethel M. Rogers,
Corresponding Secretary.

At this point the President announced that Mrs. Walter Jackson Freeman, National President, who was to be one of the guest speakers at the luncheon, could not be present because of the recent death of her father, Dr. W. W. Keen. Other speakers to be present were the President of the Pennsylvania State Auxiliary, Mrs. C. Phillips; President of the Philadelphia County Auxiliary, Mrs. J. Doane; President of the Delaware Society Auxiliary, Mrs. Robert Tomlinson; Dr. John F. Hagerty, and Dr. A. Haines Lippincott.

The President also announced that the presentation of "pins" to ex-Presidents would be made on Friday.

Report of Committee on Registration and Credentials

There were 4 Executive Board Meetings, as follows: October, 1931, at Newark, 18 members present. January, 1932, at Trenton (Open Meeting), 19 members of Executive Board present and 42 members representing 11 counties, followed by a luncheon. March, 1932. Luncheon was served at the home of Mrs. C. F. Adams, followed by an Executive Board Meeting at which there were 19 present, 15 of whom comprised the Executive Board. June, 1932, at Haddon Hall, Atlantic City; 19 members present.

Respectfully submitted,

Mrs. Maurice Chesler,
Chairman

Report of Committee on Public Relations

All counties were sent a program, with 5 requests, as follows: (1) To appoint a Public Relations Chairman in each county. (2) For the President of each Auxiliary to place herself on the mailing list of all local, county and state health departments (including all activities of the Health Department) and to inform herself on all health and welfare activities: (3) For each President to get a set of the study envelopes, sent out by the National Auxiliary. (4) For each county to have a Reciprocity Program to which other women's organizations, which have health and welfare programs, be invited. (5) To coöperate with national and state Chairmen of Hygeia and Public Health Committees.

Questionnaires have been sent out to all counties in regard to their activities, and the following report is based on the answers to the questionnaires: Eight counties answered the questionnaire: Burlington, Camden, Gloucester, Essex, Hudson, Hunterdon, Mercer and Monmouth; 6 did not have Public Relations Chairmen at the beginning of the year but had appointed Chairmen at the time of answering the questionnaire; 2 had Chairmen at the beginning of the year. Four counties had placed themselves on the mailing list of the county and state health departments, and were receiving health publications. Five counties have had Reciprocity Meetings. All the 8 counties heard from have been doing health work and coöperating with their local county medical society by furnishing speakers for other organizations.

I, personally, believe that we are making some progress with our Public Relations program. The

work is slow. The counties heard from are doing good work. I hope that another year will show more results.

Respectfully submitted,

Zula Mae Casselman (Mrs. A. J.),
Chairman.

The Chairman announced that a new committee, headed by Mrs. H. D. Corbusier, had been formed in regard to joining the State Federation of Women's Clubs. The question had been discussed at the Executive Board meeting in the winter, and the committee had conferred with the Advisory Board.

Mrs. Corbusier, as Chairman, reported that it is possible for the Auxiliary to join the New Jersey State Federation of Women's Clubs, and read the By-Laws governing membership of State Organizations in the Federation. She mentioned previous contacts with the Federation of Women's Clubs through members of the Auxiliary who have served on the Federation Board, 2 as Chairmen of Public Welfare, and stated that it is the opinion of these 2, Mrs. Shirrefs and Mrs. Casselman, that such membership is advisable. She further reported the conference with the Advisory Board of the Medical Society of New Jersey, in which the doctors gave unanimous consent to the Auxiliary's joining the New Jersey State Federation of Women's Clubs if it so desires.

Mrs. Casselman made the necessary motion that the Woman's Auxiliary to the Medical Society of New Jersey become a member of the New Jersey State Federation of Women's Clubs. It was seconded by Mrs. Clarke, and carried.

Mrs. Casselman, as Chairman of the Committee on "Pins", gave her report, stating that the pins cost less than the authorized amount of \$25, and the design had been submitted to Dr. Reik and Dr. Hagerty for approval before the pins were made.

On motion, the reports of the Standing Committees were approved as read.

The next order of business was the report of the Committee on Revision of Constitution. Mrs. Clarke acted in the absence of Mrs. Hunter. It was moved and seconded that the Constitution be passed on, article by article. All the articles were adopted as read with the exception of Articles VIII and XI, which were adopted with the following amendments: Article VIII, Section 1, was amended to read: "The management and control of this Auxiliary in the interim between the annual meetings shall be vested with the Executive Board." Article XI, Section 1, was omitted entirely.

On motion, the Constitution as a whole, as voted upon, was adopted as the official

Constitution and By-Laws of the Auxiliary.

The next order of business was the Reports of County Presidents. The reports from all of the 15 counties were on the table. There had been 21 counties in the organization, but 6 had dropped out because of rural conditions, too few members, or distance. It was moved and seconded that the County Reports be accepted as a whole.

The County Reports were read as follows:

Atlantic County

The nomination, election and installation of new officers took place in October and November. In December the Auxiliary donated money to several local charities. In January several members attended the opening meeting in Trenton, and it was not until then that we had any idea of the health programs that were being carried on.

A successful charity card party was held in February, which enabled us to help the County Visiting Nurse Association and to buy insulin for a poor diabetic child. At the regular meeting, Dr. Henry O. Reik spoke on the progress of our Auxiliaries.

The new constitution was read and accepted in March and the health program started. On April 27, the annual spring luncheon and "get-together" was held. Each monthly business meeting is followed by a social hour.

Total paid up members for 1931, 56; new members 1931-1932, 5; average attendance about 35%.

Respectfully submitted,

Violet S. Mason (Mrs. James H.),

President

Bergen County

During the season 1931-1932, the Woman's Auxiliary to the Bergen County Medical Society held its regular monthly meetings, which included 6 meetings with speakers, and 3 social events, 1 of which was the annual meeting and bridge-luncheon. The programs were planned to be primarily educational and to follow each other, in so far as possible in logical sequence. The speakers dealt with such subjects as: Work with Delinquent Girls; Child Guidance; Juvenile Court; Mental Hygiene Clinics; and Production of Serums, Antitoxins and Vaccines. One speaker described the principal problems at a State Home for Delinquent Girls, stressing the need for better understanding and sympathy in the treatment of these girls, many of whom are victims of circumstances beyond their control. Another described the workings of the Juvenile Court, citing interesting cases and pointing out that physical defects in a child are often the cause of moral delinquency. A talk on preparation of antitoxins, serums and vaccines was accompanied by illustrative pictures. The final speaker discussed the operation of clinics established for mental hygiene work, and the successful efforts which are being made to help unfortunates regain normal health.

An evening card party was held for the benefit of the Charity Fund. At an afternoon Musicales-Tea, a piano recital was rendered by a talented member of the organization, who presented a delightful program. The Annual Meeting and bridge-luncheon with election of officers and appointment of delegates was held May 17, instead of October, 1932, to cooperate with the State Auxiliary.

The Executive Board held 2 meetings during the year.

The State Executive Committee Convention at Trenton, January 11, was attended by our President and a group of members.

At Christmas the society donated \$10 to each of the 4 county hospitals, the 3 county nursing services, American Red Cross, and Salvation Army.

The annual report of the Treasurer shows a balance on hand in October 1931 of \$161.30. Total receipts for the season amounted to \$219.75, making a grand total of \$381.05. Disbursements for the year amounted to \$251.20, and included \$90 donated at Christmas, the annual dues to State and National Auxiliaries, and \$10 contributed to the National Donation Fund. The balance on hand is our nucleus for charity work for the coming year.

Respectfully submitted,

Mayme Webster Morrow (Mrs. J. R.),

President

Burlington County

In Burlington County we have 54 wives of physicians eligible for membership. One year ago, our membership numbered 48; this year it numbers 47. We are happy to have retained all members except 1 who moved from the state.

We hold 4 meetings each year, with 40-50% attendance at each meeting, although weather conditions sometimes make us fall below, as we are so widely separated in Burlington County. We have found that members will attend more meetings if we have a social hour. Perhaps only a cup of tea may be served, but this promotes friendship and harmonious meetings.

Our first autumn meeting, held September 30, 1931, was confined to appointment of new committees and discussing projects for the winter. Our county medical society had given us a new work for the winter of 1931-1932, namely, that of securing engagements for county physicians to address gatherings such as Parent-Teacher Associations, Women's Clubs, Rotary Clubs, and other groups interested in public health. We are happy to have our County Medical Society, to which we wish to be a real "auxiliary", ask us to cooperate in this way because receiving such recognition makes us feel we are a worth-while organization. We were fortunate in securing 15 engagements: 9 Parent-Teacher Associations; 1 Woman's Club; 1 Kiwanis; 1 Porch Club; 1 Wise Men's Club; 1 Rotary; and 1 Business and Professional Woman's Club. Letters praising the doctors' splendid speeches make us feel we accomplished something. Mrs. Milton Schisler, of Florence, consented to act as our Press and Publicity Committee Chairman.

The second meeting was our annual autumn luncheon at Riverton Country Club. It was both an honor and a happy occasion to have our State President, Mrs. Van Ness, as guest, and we hope she enjoyed being with us.

Mrs. Marcus W. Newcomb, of Brown's Mills, has been appointed State Chairman of Legislation. Knowing Mrs. Newcomb's ability, we feel sure she will do us honor. Mrs. D. B. Remer and her committee were appointed to visit our county hospital and determine what should be our Christmas donation to that worthy institution. A basket of fruit was given to each of the 47 ward patients; 12 children received toys. I am sure Mrs. Remer and her committee were repaid for their efforts when they saw the smiles which lighted the face of each one when presented with a gift.

Our third meeting was a tea at Mrs. D. B. Remer's home in Mt. Holly, January 26, 1932. Our

President, Mrs. Luther Hartman, gave a report of the open State Executive Board meeting in Trenton on January 18, which Mrs. Joseph Kuder, Mrs. Lyman Hollingshead and Mrs. Daniel Remer also attended. At the close of our business meeting, tea was served by Mrs. Kuder, mother of Dr. Kuder, and our hostess.

Our Reciprocity Tea was held at the Moorestown Community House on March 21, 1932. Dr. Beardley, Associate Professor of Medicine at Jefferson Medical College, Philadelphia, was our speaker. He was introduced by Dr. Howard Curtis, President of the Burlington County Medical Society. "Old Man Winter" descended on us with a mantle of snow a foot deep, which kept many from attending this meeting. However, we were happy to have 76 women and 8 men as our guests, these representing neighboring auxiliaries, Women's Clubs, P. T. A.'s, medical societies and other organizations. A musicale ended this delightful afternoon.

Our last meeting was a picnic luncheon at the cabin of Mrs. Lyman Hollingshead at Medford Lakes. Business for the year was ended. New officers elected were: President, Mrs. Emlen Darlington, New Lisbon; Vice-President, Mrs. Walter Zwick, Riverside; Secretary, Mrs. J. H. Hornberger, Roebling; Treasurer, Mrs. P. B. Reisinger, Roebling. Delegates to State Convention: Mrs. Luther M. Hartman, Maple Shade; Mrs. J. H. Hornberger; Mrs. G. Wilkinson, Moorestown. Alternates: Mrs. D. B. H. Ulmer, Moorestown; Mrs. Emlen Darlington; Mrs. Marcus W. Newcomb, Brown's Mills. After the President's annual report was read, the meeting adjourned and we played bridge.

We wish for our sister auxiliaries many prosperous and happy years to come.

Respectfully submitted,

Mrs. Luther Hartman,
President

Camden County

Change of the fiscal year from October-October to January-January, gave the Woman's Auxiliary to the Camden County Medical Society only 3 regular meetings. We remedied this situation, however, by having an open meeting and a Public Relations and Reciprocity meeting.

I acted on our State President's suggestion—that officers elected in October be reelected, as otherwise their term of office would be cut too short—and requested that all officers except the President, whose health had not been good, be reelected. This was done. I am serving as a Director.

We have approximately 105 wives of doctors in Camden County eligible for membership. A year ago we had 43 paid-up members; we added 2 new members this year, making a total of 45.

On November 4, 1932, we held our first Executive Board meeting at the Walt Whitman Hotel in Camden to appoint committees. After the close of business, refreshments were served by the President, our hostess.

On November 27, our second Executive Board meeting was held at the home of Mrs. William H. Pratt. Plans were made for our first regular meeting, in order that the month of December could be devoted to Christmas activities.

"Welfare Work" was the topic of the first regular meeting of the new year, held on January 5, 1932, at the home of Mrs. E. G. Hummel. A substantial offering was made for this work by the members, and a committee of 5 was appointed by

the President to ascertain the best method of expending the fund.

On January 26, a tea was given at the Women's Club of Camden. This was the Public Relations and Reciprocity meeting. Delegates from Parent-Teacher Associations, other county auxiliaries, and Women's Clubs in Camden and vicinity, were the guests. Dr. William Krusen, President of the Philadelphia College of Pharmacy, was our guest speaker. The Misses Ann Clark and Louise Hummel gave a delightful dramatic entertainment. Mrs. William A. Wescott and Mrs. Levi B. Hirst received the guests most graciously. Mrs. A. Haines Lippincott explained the aims of the Auxiliary and asked the different organizations to make use of the Auxiliary's health educational programs.

On February 16, an Executive Board meeting was held at the home of Mrs. Harold F. Wescott, of Clementon. Mrs. James Hunter, a State Auxiliary Past-President, was a valued guest. We reduced our dues from \$5 a year, with Hygeia, to \$2 a year, letting it be optional with members whether they subscribe. This was done to increase membership.

On March 1, we held our second regular meeting in the City Dispensary. We again amended our Constitution and also had the State Constitution read, preparatory to taking a vote on it at our Convention in June. A nominating committee of 5 was appointed by the President. At the close of the business meeting, Dr. Arthur J. Casselman and Dr. William H. Pratt, both of Camden, addressed the Auxiliary. Dr. Casselman's topic was "Germs", and Dr. Pratt, Chief Medical Inspector of the Camden City Schools, spoke on "Medical Work in the Schools". Both doctors permitted questions, and were pleased to have such an interested audience.

On April 11, an Executive Board meeting was held at the home of Mrs. A. J. Casselman. Arrangements were made for our regular meeting and annual luncheon in May.

On May 24 the regular meeting and annual luncheon was held at Log Cabin Lodge, Medford Lakes. There were 60-70 attendants, the largest number we have ever had. Among our special guests were Mrs. J. C. Doane, President of the Woman's Auxiliary to the Philadelphia County Medical Society; Mrs. W. B. Odenatt, Chairman of its Public Relations Committee, and Mrs. Wilkinson, of the same auxiliary; and Mrs. James Hunter, Past-President of our State Auxiliary. Mrs. Van Ness, State President, could not be with us because of a previous engagement, but I know she was with us in spirit. At the close of the luncheon came the President's greeting and farewell. The new officers were elected and installed. The new President, Mrs. A. Haines Lippincott, presented a beautiful chain and pendant of platinum, set with an emerald, to the Past-President in the name of the Auxiliary. It was a great surprise to me, but I am proud of it and will always prize it as a precious memento. Mrs. Lippincott told of her delightful trip to the convention at New Orleans. We were then treated to a comedy by the Misses Ann Clark and Louise Hummel, which delighted all. Thus closed my year's work.

In regard to the National Study Envelopes, I think they are splendid, and I wish we could interest our doctors' wives (I know the doctors themselves are responsible for the indifference of their wives—they have told me so). Tuberculosis, heart and kidney diseases are on the increase, and are subjects for special study. If our germ specialists could find the germ that lights on all of us—the "common cold"—it would add another illustrious

discovery to medical annals; not for a *country* or for an *age*, but for all *countries* and for all *time*.

Every doctor's wife is in sympathy with the Widows and Orphans Society, I am sure, but, so far as I know, the wives have been unable to get their husbands to join.

Respectfully submitted,

Lillian A. Roughley (Mrs. W. C.),
Past-President

Cape May County

Our Auxiliary is small, being composed of only 5 or 6 members who are really interested. The principal reason for this lack of interest is because the work we had planned is completely covered by our county nurse association, Red Cross nurse, community nurse and the health physician. Also, it is practically impossible for a group of women to work together effectively in this county, because we are too far apart geographically. We elect officers in the autumn, the same time as the county society. I was away last year and the year before when the officers were elected. This last autumn I tendered my resignation, but it was not accepted. I sincerely hope they will be able to select someone who will be successful in creating an interest.

Respectfully submitted,

Lulu B. Hughes (Mrs. Frank R.)

Essex County

There are about 650 doctors' wives who are eligible for membership in our County Auxiliary. The number of members a year ago was 155; the present number is 187. During the past year 5 have resigned.

Four meetings are held during the year, with an average attendance of 50. Short business meetings are held, followed by speakers. Our programs have been educational. As guest speakers we have had the Presidents of the County and State Medical Societies, Mr. William J. Ellis, Commissioner of the Department of Institutions and Agencies; Mrs. A. Haines Lippincott, Chairman of Public Relations of the Woman's Auxiliary to the American Medical Association, and a former President of the State Federation of Women's Clubs.

With only 4 meetings, we have been unable to carry out the program of the American Medical Association Auxiliary in making use of the study envelopes. An effort is being made by our Executive Board to hold more meetings during the coming year in order to carry out this program.

At a Reciprocity Meeting, to which Presidents of Women's Clubs, Day Nurseries, and Parent-Teacher Associations were invited, we were able to present a program on health education. We have been able to carry this further by means of Mrs. Taneyhill's talks over the radio.

Our Auxiliary has not cooperated in any health work with the county health officials.

A committee was appointed to help in a membership drive for the Society for the Relief of Widows and Orphans of Medical Men of New Jersey. After an appeal by the Chairman of this committee to every member of the county medical society who was not a member of this organization, 20 new members were procured.

Respectfully submitted,

Miriam S. Teimer (Mrs. T.),
President

Gloucester County

The Woman's Auxiliary to the Gloucester County Medical Society has held 8 regular, and 2 executive, meetings in the past year. We now have a membership of 35, 8 new members having joined within the past 6 months.

In January we were guests of the Gloucester County Medical Society. Dr. John A. Kolmer delivered an interesting and instructive address on "The Specific Treatment of Pneumonia".

In April a new Constitution was adopted, changing our Annual Meeting from October to May. This made it possible for us to plan our program for the year 1932-1933.

During the past year our society has done more toward the accomplishment of those objectives which we deemed most needful for our organization—to increase membership, to stimulate an interest among members, resulting in better attendance and coöperation, and to promote a spirit of friendliness and understanding among the families of our physicians.

It has been most gratifying to see our average attendance increase from 8 members last year to 19 this past year.

Respectfully submitted,

Lydia P. Downs (Mrs. E. E.),
President

Hudson County

The Woman's Auxiliary to the Hudson County Medical Society has a membership of 104, including wives, sisters and daughters of physicians. We hold our meetings on the first Monday in each month from October to May. We have had 8 meetings, 2 card parties, 1 Reciprocity Meeting and a play-day. We have had our State President, Mrs. H. Roy Van Ness, as speaker at 2 meetings, including our Reciprocity Meeting; we have had Mrs. Ethel C. Taneyhill, Field Secretary of the State Medical Society, who gave us a wonderful talk on Drugs and Nostrums; a Scrap-Book Day, when the members gave the program, reading short articles along scientific lines, including an original paper on "Germs in Our Daily Life"; 1 meeting when we stressed Hygeia; and a meeting when a local doctor gave a talk, illustrated with pictures, of a most interesting trip through Europe.

We have given \$100 to charity, in payments of \$25, to each of the following: Boy Scouts, St. Francis' Hospital Bread Line, Y. W. C. A. Unemployment Fund, and Bayonne Day Nursery. We have a charity box and at each meeting members are asked to contribute a bit of change; this money—to date about \$25—has been given to the Red Cross Visiting Nurse Association to buy milk for undernourished children.

We have complied, as far as possible, with the wishes of the State and National Auxiliaries, by appointing Chairmen to agree with theirs; and the President of the Hudson County Medical Society has appointed an Advisory Board of 3 physicians.

Respectfully submitted,

Caroline Comstock Culver (Mrs. George M.),
President

Hunterdon County

The Woman's Auxiliary to the Hunterdon County Medical Society met at Califon, at the home of Mrs. I. Topkins, on February 25, with Mrs. Topkins presiding. At this meeting, ways and means were discussed to further the welfare and growth of the Auxiliary.

On April 10, a meeting was held at Reuzoes, at the home of Mrs. William McKorkle, at which 2 Delegates to the State Medical Society meeting were appointed—Mrs. Topkins and Mrs. McKorkle. Unfortunately we had very few members present, due to illness.

Permit me to suggest that the state officers of the Auxiliary make an effort to stimulate the interest of the component societies. Many physicians' wives in our county have never made an effort to join the Auxiliary, and some who do belong, seem lukewarm, and I find that a good many doctors oppose their wives' belonging to the Auxiliary.

Respectfully submitted,

Mrs. I. Topkins,
President

Mercer County

We have 133 doctors' wives in the county eligible for membership. Number of members a year ago, 60; present number, 70. We have not lost any active members. However, a few who came to 1 or 2 meetings, continue to be paid-up members but do not attend meetings.

Auxiliary meetings are held every 2 months. Average attendance is 30. Members prefer the luncheon type of meeting. For instance, luncheon at 1 o'clock, followed by business meeting. The meeting is then handed over to the Program Chairman. The program may be a talk by a member of the staff of one of the state institutions or other interesting person, or a paper prepared and discussed by Auxiliary members.

Our meetings have been planned prior to receiving the Study Envelopes. However, we devoted the March meeting to a discussion of "High Spots in Fifty Years of Medical Progress". We had 3 members study the paper thoroughly and discuss it in detail. General discussion followed. (I feel that, after a further use of the study envelopes, we will be better prepared to offer constructive criticism. In general, we like the well-prepared material and find it stimulates interest and attendance to use it, and that the members on the program can be depended on to have their friends in attendance.)

We have studied local health conditions in this way: One meeting was held at the State Home for Girls, and was followed by inspection of the institution, especially the methods used along medical and dental lines. Our April meeting will be held at the State Hospital for the Insane, where a similar plan will be followed. One of our most active members is the wife of the City Health Officer and she brings us much of interest regarding local health conditions. In addition, we encourage members to read carefully the Trenton Health Bulletin, which comes each month to our offices.

Through the Speakers' Bureau of our Auxiliary, we have sent physicians to schools in the city and county, as speakers at Parent-Teacher meetings. Also, as requested, we have had papers prepared by well-informed doctors and dentists, to be read at the P.-T.-A. meetings.

With a few exceptions, every member is an active member of some health committee. All are members of their respective Hospital Boards, Children's Guardians Society, Social Service Committees, Day Nurse Boards, etc. We stand ready to coöperate wherever needed. Our Secretary has so indicated in letters to the Mercer County Health League, P.-T.-A. groups, etc. In our visits to State Institutions, and in a call on the City Health Officer, we have also so expressed ourselves. As

for the greatest health need, I do not feel qualified to say.

We have had no success in procuring members for the Widows and Orphans Society. However, we will push this.

Respectfully submitted,

Mrs. D. Leo Haggerty,
President

Monmouth County

Of 75 eligible members in the county, we have 26 active members, an increase of 5 this year.

We have had 3 meetings, with an average attendance of 18. Our first meeting was held at the Red Bank Yacht Club, with Mrs. George N. J. Sommer as speaker. The second meeting was held at the home of our President. Mrs. A. Haines Lippincott was guest speaker. Our third meeting was held at the home of Mrs. William K. Campbell. Dr. Stanley Nichols, President of the Monmouth County Medical Society, gave a very interesting talk on "The Cost of Medical Care". Tea was served by our hostess.

At least 1/3 of our members are active workers in hospital auxiliaries, clinics, child welfare work and social service.

Respectfully submitted,

Mrs. W. G. Herrman,
President

Ocean County

The Ocean County Auxiliary has held 4 regular business meetings during the past winter. Our March meeting was held in the Y. W. C. A. in Lakewood, at which time we heard Mrs. E. C. Taneyhill speak. There was a large attendance and everyone was enthusiastic about her talk.

Part of our work this winter has been to place Hygeia in many of the county schools. To help finance this undertaking, a card party was held in November and the entire proceeds were used for Hygeia subscriptions.

Ocean County Auxiliary is small in numbers, our enrollment being 16, with only half that number active. However, we are well organized and we stand ready at any time to use our energies in whatever direction our call may lead.

Respectfully submitted,

Alice M. Deniston (Mrs. Frank),
President

Passaic County

The Woman's Auxiliary to the Passaic County Medical Society has held 4 meetings: October 8, 1931—election of officers; January 18, 1932—business meeting and talk by Mr. Meese, Superintendent of the North Jersey Training School; March 21—business meeting, social hour, cards and reception to new members; and May 16—election of officers to comply with the request of the State Auxiliary, at which time the present officers were all reelected. It was our privilege that day to entertain at luncheon the State President, Mrs. H. Roy Van Ness, and to enjoy with her, after the business meeting, an interesting word-picture of Ten Famous Women in History, by Mrs. Olaf Berg. Tea and cakes were served by the Social Committee at the close of each meeting.

On March 8, we entertained at dinner Mrs. Morris Fishbein, wife of the Editor of the Journal of the American Medical Association. It was a happy occasion and we enjoyed Mrs. Fishbein's talk about the value of the Auxiliary in medical legislative

work, as well as Dr. Fishbein's lecture given that evening to a large group in Paterson.

The Membership Committee invited every eligible woman in Passaic County to become a member. We secured 10 new members and now have 81 members.

We have contributed \$40 to Unemployment Relief, the Children's Milk Fund, and the Tuberculosis League Children's Camp.

The President arranged for a talk by Mrs. Taneyhill, Field Secretary of the New Jersey Medical Society, at a meeting of the Barnert Temple Sisterhood.

The Card Party on April 28 was most successful, \$109 being realized.

Respectfully submitted,

Harriet D. Russell (Mrs. Charles B.),

President

Somerset County

On October 8, 1931, the Auxiliary met with the Somerset County Medical Society at its annual dinner held in Somerville, at the Hotel Deauville. There were 20 members present. After a brief business meeting, we joined the men at dinner and were privileged to hear State Senator Dryden Kuser address the guests on "Milk and Its Source". He urged consumers to insist on *dated* milk, as there is a large percentage of the milk being sold in cities which, being shipped from the west, is not fresh. At this meeting our Treasurer reported a small balance in the treasury. The members voted to use this money to provide a special nurse for any child in the ward at Somerville Hospital who was in need of such special service and whose parents could not afford it.

On January 11, 1932, the Executive Board met at the home of Mrs. Lancelot Ely, in Somerville, to make plans for future work. We decided to organize a drive to secure new members for the Society for the Relief of Widows and Orphans of Medical Men in New Jersey. To date, we have secured 5 new members.

On February 11, a meeting was held at the Nurses' Home in Somerville. A committee was appointed to nominate candidates for offices to be filled at the next meeting. Afterwards, a social hour was enjoyed and refreshments were served.

In connection with the Auxiliary and public health work, I asked Dr. D. S. Renner, of Skillman, to address the Bernardsville Woman's Club on "Sterilization of the Unfit". Dr. Renner gave an excellent talk and made it quite plain that if unfortunates suffering from mental illness could be made sterile, much could be done to decrease the number of state charges.

We have placed Hygeia in Somerville, Bound Brook and Bernardsville High Schools.

While the Somerset County Auxiliary does not seem to have been very active, still we are keeping together and, by doing that, we hope to grow. The Somerset County Medical Society is one of the oldest in the state, having been founded May 16, 1816; therefore, we should be proud of our Auxiliary and keep going on.

I want to thank our State President, Mrs. H. Roy Van Ness, for interest, helpful letters and personal help, and my own officers for their cooperation.

Respectfully submitted,

Anna L. Meigh (Mrs. J.),

President

Union County

The Woman's Auxiliary to the Union County Medical Society has held quarterly meetings coincident with the regular meetings of the medical society.

We were favored by the presence of Mrs. Nevin, Past-President of the State Auxiliary, who gave a stimulating talk on American authors. Mrs. H. Roy Van Ness, President of the State Auxiliary, gave her version of the responsibilities and opportunities which belong to the Auxiliary. Dr. Hagerty, President of the State Medical Society, and Mrs. Hagerty have also been our guests. Dr. Hagerty spoke appreciatively of the support which the Auxiliary can give to the medical society. Dr. Hubbard, President of the County Society, greeted us at one meeting. We also greatly enjoyed an informal talk by Mrs. Hoover, of Elizabeth, on her life as a physician's wife in Turkey. Mrs. Shirrefs gave an interesting talk on "Making a Small Garden". One meeting was given over to an informal discussion of purposes, policies and means.

We have had no special or additional meetings this year and have tried to avoid or postpone any effort to raise funds except by dues, as such effort seemed inadvisable in this period of stress. Neither have we undertaken any stated work—our purpose being to hold our organization together and in readiness to serve the county and state medical societies whenever they may call upon us.

While our attendance is never large, our meetings are always interesting and there is a growing feeling of mutual interest and solidarity among those who habitually attend. We are kept in touch with the state organization by our 3 members on the State Board: Mrs. Orton, Mrs. Kinch and Mrs. Hubbard.

Respectfully submitted,

Louise L. Corbusier (Mrs. H. D.),

President

On motion, the reports were accepted as read.

A letter was received to the effect that the Auxiliary to the Warren County Medical Society was no longer in existence.

The next order of business was the President's Report. Mrs. Van Ness turned the chair over to the First Vice-President, Mrs. Hartman, and read the following report, which was accepted as read:

Report of the President

The New Jersey State Auxiliary Executive Board has held 5 meetings during the year at which time the work of the Auxiliary was discussed, and plans were formulated to carry out the work outlined by the National Board. Reports of these meetings appeared in the Journal. Each County has also contributed a report of its meetings to the State Journal, and National Auxiliary articles have appeared at different times. We are indebted to the State Society for the generous space afforded us in the Journal.

New Jersey was congratulated on its fine contribution to the National Scrap Book, which was new this year.

Your President has endeavored to assist the National Board by answering all mail promptly, sending reports in on time and complying with all requests made during the year.

We have conferred with our Auxiliary Board of

4 doctors at various times, and have had the untiring coöperation of the State President, Dr. Haggerty, at all times. Each county not having an Advisory Board appointed to confer with the County Auxiliary, received a communication from our State Auxiliary, requesting that one be appointed.

In the 15 organized counties, we have 812 members—697 paid-up members. There has been an increase in some counties of 7-25 members, in the past year. The State Auxiliary sent out membership blanks to the counties, to be used to obtain eligible members not on the files. Notices were sent to the 6 counties which have disbanded, asking interested members to become members at large, by paying to the State Auxiliary \$1 a year; 1 response was made.

Our aim this year was to have uniform organizations throughout the counties, to enable us to carry on the routine work in a more uniform way and with as little effort as possible. Each county was sent a skeleton Constitution, which could be drawn up to suit the individual county needs and which was based on the State and National Constitutions.

A list of committees was sent to all county auxiliaries, and the State Chairmen, after laying out their programs for the year, communicated with all corresponding chairmen in each county, giving an outline of the year's work. Outline of the duties of a county president were sent to each county. Most counties have conformed to the plan for an annual meeting in the spring, a President-Elect, and a uniform fiscal year.

This routine work well under way (and I have found that most counties responded favorably to it), we could devote our efforts to new work—health education of our own members and public relations or educating lay groups on health matters. With this new work added to our social and philanthropic activities, which the counties have carried on so well, the counties found meetings once a month none too often, and those having only 4 meetings a year found that number inadequate to follow out the program recommended by the State Auxiliary. It was encouraging to see how many counties carried out the Reciprocity Meeting requested by the Public Relations Committee, and also the number of counties which have had educational meetings with health speakers.

Because annual meetings came at varied times, some not until January, it was difficult for some counties to carry out the program, but in many instances the same officers are carrying over until next May, and, with the committees well established and details of organization well under way, the Auxiliaries can plan definite programs for the entire year, with probably more information and assistance coming from our very capable National President, Mrs. Walter Jackson Freeman. For the past 4 years, each County has carried on its auxiliary work in its own way; no 2 Counties being uniform in any one thing, but this year has been a year of readjustment. The National Auxiliary has laid out a definite outlined program, along with requests by the State Auxiliary for uniform procedure, which may be put into effect or not, as the county desires, but, in my opinion, more progress will be made if the counties adopt the National and State Auxiliaries' programs.

The state philanthropic work for the Widows and Orphans Relief Fund of New Jersey has been handled very successfully in some counties. This is a personal work which each one may do, for

who knows when some of our own friends in the profession may need help, or when misfortune may even come to us? Let us not give up this work until we have obtained every eligible member in the state, and so assured ourselves that every doctor's wife, if misfortune should befall her, will have assistance from this wonderful organization because of the efforts our Auxiliary has made. Due to our efforts this year, there have been more members added at one time, to this organization, than at any other time during its existence. To what other organization could you better donate your contributions than to the widows and orphans of men in the same wonderful profession as your husband? Each county might well contribute a definite amount of money each year to this fund.

It has been my privilege to be present at 12 Auxiliary meetings and to find the same spirit of harmony existing in the counties as in the state, and also to find in every county the same splendid type of women.

May I express my appreciation of the coöperation and loyalty of the members of the Executive Board and chairmen of committees, who have possibly found this year's work a little burdensome, but who have carried through to the end so successfully. It has been a pleasure to work with such earnest and capable women, and, to the presidents and Executive Boards of the counties, we wish to express sincere appreciation of everything you have done, whether your activities have been in the educational, social or philanthropic field.

Respectfully submitted,

Lorena Van Ness (Mrs. H. Roy),
President

The report of the Nominating Committee was read by Mrs. D. Leo Haggerty. The nominations were as follows:

President, Mrs. Charles F. Adams, 1212 Stuyvesant Avenue, Trenton, Mercer County.

President-Elect, Mrs. H. H. V. Hubbard, 121 East Seventh Street, Plainfield, Union County.

First Vice-President, Mrs. William R. Campbell, 96 Third Avenue, Long Branch, Monmouth County.

Second Vice-President, Mrs. F. J. McCauley, 298 Washington Street, Glen Ridge, Essex County.

Third Vice-President, Mrs. A. L. Stillwell, 30 North Bridge Street, Somerville, Somerset County.

Recording Secretary, Mrs. F. J. Altschul, 128 Garfield Avenue, Long Branch, Monmouth County.

Treasurer, Mrs. Edward W. Clarke, 435 Warwick Avenue, West Englewood, Bergen County.

Directors for 3 years, Mrs. D. F. Featherston, 506 Fourth Avenue, Asbury Park, Monmouth County; Mrs. W. H. Pratt, 516 Cooper Street, Camden, Camden County.

Directors for 2 years, Mrs. Warren J. Duckett, 21 Carlton Avenue, Jersey City, Hudson County; Mrs. F. A. Kinch, 267 East Broad Street, Westfield, Union County.

Directors for 1 year, Mrs. William Freile, 2600 Boulevard, Jersey City, Hudson County; Mrs. C. B. Russell, 67 Watchung Avenue, Upper Montclair, Passaic County (to serve unexpired term of Mrs. Henry B. Diverty).

These Directors were elected last year and have not completed their terms.

On motion, the Report of the Nominating Committee was accepted. The Corresponding

Secretary and Chairmen of Standing Committees were appointed.

Since there were no nominations from the floor, it was moved and seconded that the Secretary cast the ballot. The above named officers were elected.

Under new business, a letter from Dr. Nichols was read by the Secretary, recommending that the Auxiliary take up child health work during the coming year. On motion, it was so recommended.

The Chairman then made several announcements concerning the social activities of the Convention, including the Dinner Dance in the Rutland Room and Card Party and Tea under the auspices of the Atlantic County Auxiliary.

The Report of the Auditing Committee was called for and presented by Mrs. Hubbard. The books of the Treasurer had been examined and found correct. The report was accepted.

The Scrap-Book was discussed and members were urged to send in their clippings to the State Auxiliary whenever they are called for. These clippings are to be placed in a loose-leaf note book and returned to the State organization after the A. M. A. Convention, for use in compiling a State scrap-book.

Mrs. Corbusier made a motion that the members rise in appreciation of the work of the retiring officers, the county presidents and committee chairmen.

It was announced that the pins were to take the place of the gift that is given to the retiring President, and that the Executive Board thought it a nice gesture to give pins to Past-Presidents also.

It was moved that a note of sympathy be extended to Mrs. Walter Jackson Freeman, the National President, regarding the death of her father, Dr. W. W. Keen.

Mrs. Chesler gave a final report of the registration. There were 78 members attending and 14 counties represented.

Mrs. Van Ness then turned the chair over to the incoming President, Mrs. Adams, who addressed the convention. Mrs. Adams gave briefly her program for the coming year, which centered largely upon the children's program of Dr. Nichols, and aimed also to make the Auxiliary valuable to the State Federation; to draw into the organization all doctors' wives who are eligible; and to increase the membership in the Society for the Relief of Widows and Orphans of Medical Men of New Jersey.

Mrs. Adams read the list of Committee Chairmen, and Corresponding Secretary as follows:

Chairmen of Committees

Hygeia, Mrs. R. K. Hollinshed, Westville, Gloucester County.

Entertainment, Mrs. D. Leo Haggerty, 227 North Warren Street, Trenton, Mercer County.

Registration and Credentials, Mrs. Hunter Scott, 205 Roseville Avenue, Newark, Essex County.

Press and Publicity, Mrs. Maurice Chesler, 521 Pacific Avenue, Atlantic City, Atlantic County.

Public Relations, Mrs. A. J. Casselman, 301 North Second Street, Camden, Camden County.

Health and Education, Miss Ann Heatherington, 107 Kensington Avenue, Jersey City, Hudson County.

Legislation, Mrs. Marcus W. Newcomb, Brown's Mills, Burlington County.

Organization, Mrs. Earl Snively, Newark City Hospital, Newark, Essex County.

Corresponding Secretary, Mrs. Dan S. Renner, Skillman, Somerset County.

Mrs. Adams announced an Executive Board Meeting at 10.30 a. m. Friday; asked that all the ladies whose names were read be present; and also announced that at that time the new Nominating Committee would be named.

Upon motion, the meeting adjourned at 12.20 p. m.

MEETINGS OF THE COUNTY SOCIETIES

Atlantic County.—Meets second Friday evening monthly, except in June, July, August and September. Annual Meeting in November.

Bergen County.—Meets on second Tuesday each month, except July and August. Annual Meeting in January.

Burlington County.—Meets second Wednesday afternoon of January, March, May, September and November. Annual Meeting in November.

Camden County.—Meets first Tuesday in each month October to May inclusive, with an outing on second Tuesday in June. Annual Meeting in October.

Cape May County.—Meets on first Tuesday in April and October. Annual Meeting in October.

Cumberland County.—Meets on the second Tuesday of January, April, July and October. Annual Meeting in October.

Essex County.—Annual Meeting is the first Thursday in October. Other meetings on the second Thursday of each month, November to May, inclusive, on call of the President.

Gloucester County.—Regular meetings on the third Thursday of each month, October to June, inclusive. Annual Meeting in November. Annual Social Session in September.

Hudson County.—Meets first Tuesday evening of each month, October to May, inclusive. Annual Meeting in October.

Hunterdon County.—Meets on the fourth Tuesday of January, April, July and October, the latter being the Annual Meeting.

Mercer County.—Meets on the second Wednesday of each month, except July, August and September, at 8.30 p. m., in the Carteret Club

at Trenton. Annual Meeting in December. Annual Banquet in November.

Middlesex County.—Meets on the third Wednesday afternoon of each month, September to June inclusive. Annual Meeting in December.

Monmouth County.—Meets on the last Wednesday in each month from October to June inclusive. Annual Meeting on the Tuesday after the first Monday in December.

Morris County.—Meets on the second Tuesday in March, June, September and December. Annual Meeting in September. Special meetings (1-3 yearly) for additional scientific discussions arranged by Executive Committee.

Ocean County.—Meets in May and November as called by the Secretary. Annual Meeting in November.

Passaic County.—Meets on the second Thursday evening of each month, except June, July and August. Annual Meeting in October.

Salem County.—Meets on the second Wednesday in February, April, October and December. Annual Meeting in October. Social Meeting in May.

Somerset County.—Meets on the second Thursday afternoon in February April, June, October and December. Annual Meeting in October.

Sussex County.—Annual Meeting on the second Tuesday in September; other meetings bi-monthly, September to May inclusive.

Union County.—Meets on the second Wednesday of January, April, July and October. Annual Meeting in October.

Warren County.—Meets on third Tuesday of January, April, July and October; the last named being the Annual Meeting.

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